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Jobs for the Future's National Faculty, which includes JFF staff members and consultants, provides strategic consultation and technical assistance to schools, communities, and school districts that are committed to working together to improve young people's academic achievement and to expand their opportunities for postsecondary education and meaningful careers.

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A high school field biology class working closely with the local parks department does research on native plants and uses that information to reforest a neglected and polluted stream bank. . .

An afterschool youth program organizes teenagers into a performing arts troupe that writes plays about peer pressure, teen pregnancy, youth violence, and other topical concerns and performs them for other teens. . .

Students in a health careers pathway culminate their four-year course of study by each doing a major research project, under the tutelage of a doctor or medical researcher at a partnering clinic. . .

These are all examples of community-connected learning, a term Jobs for the Future uses to characterize the boundary-crossing nature of the best practices we are finding in high school districts and communities across the country. Underlying such practices are several key premises: that learning takes place in many settings beyond the traditional classroom; that classroom learning itself both contributes to and benefits from the application of knowledge to real problems and situations; and that student motivation, and engagement, and ultimately their academic achievements and future prospects depend on such connection.

Although a new label, community-connected learning encompasses a set of practices and ideas that have inspired generations of students, teachers, parents, and school reforms. It is easy to understand why—as adults we need only think back to our own schooling. When JFF conducts workshops with teachers, we ask them to identify the most meaningful or memorable learning experience of their high school years. Most come up with stories about extended, complex projects: an original play their ninth-grade humanities class wrote, directed, and produced;

CHAPTER 1

Keeping Reform on Track: Benchmarking and Action Planning

CHAPTER 2

Achieving Rigor and Relevance

CHAPTER 3

Personalized Learning: Creating Small Learning Communities

CHAPTER 4

The School Plus: Extending Learning Beyond the Classroom

CHAPTER 5

Safe Passage to Adulthood: Structuring the Transition

CHAPTER 6

Using Data to Guide Reform

CHAPTER 7

Design Studios

Author: Adria Steinberg their work on the school newspaper or yearbook; a trip to Mexico where they lived with a family and studied Spanish for two weeks.

Not surprisingly, when we ask students to bring examples of their "best quality" work to share, very similar kinds of products and performances emerge: students bring a business plan they developed for establishing a radio station in the school; they share a video-tape of campaign ads they created in support of candidates or propositions in a recent election; they proudly display the model rocket they designed for a science fair project.

Young people are not shy about telling adults what they want and need from their high school. Their list almost invariably includes a desire for more challenge, choice, and connection. A very small percentage of students can count on finding these three "C's" in their high school experience. They get their challenge from Advanced Placement courses, their choice via a full set of electives and extracurricular commitments, and their connection to caring adults through the access provided by their leadership positions in the school as well as from their own families.

For many other young people, high school is a vastly different experience. As they will freely tell you, they do not work very hard in school; in fact, they find it boring. With graduation requirements increasing, they can make fewer choices and have less access to electives, and they do not believe that their teachers either know or care about them. One large-scale survey indicates that around 40 percent of our high school students are simply "going through the motions."

As a result, they leave high school inadequately prepared for college or careers. Although most head to some form of postsecondary education, at least half leave

CONNECTED LEARNING COMMUNITIES Introduction to the Toolkit

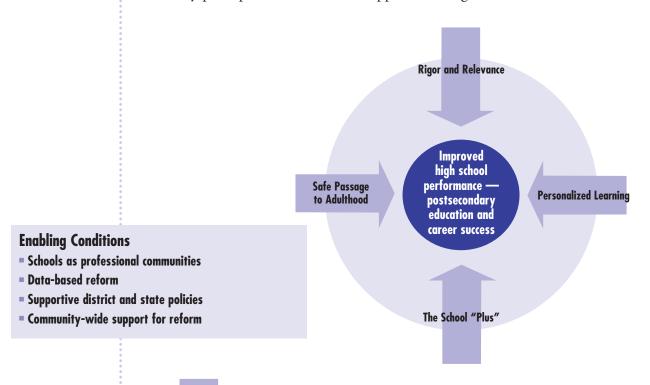
before getting a degree or credential, and spend the next five to ten years in some combination of course-work and youth labor market or temporary jobs. For many young people, this floundering period can last into their late twenties. They enter adulthood lacking credentials and the kinds of critical thinking and problem solving skills and habits of mind and work (e.g., persistence, self-management) that seem to be the basic currency of the emerging economy.

Design Principles for Reinventing High School

For over a decade, Jobs for the Future has documented and worked with schools and districts committed to giving students more help in making the transition into adulthood. In these communities, education reform is directed not only at improving the academic achievement of young people, but also at strengthening their engagement in and connection to productive activities in the community. Such an educational strategy demands that schools enter into new relationships with a variety of community partners and build with them a system of opportunities and supports to help young people move successfully into college and careers.



Four key principles characterize this approach to high school reform:



Rigor and Relevance:

When students ask—as they frequently do—"Why do I need to know this?" they are searching for a more apparent connection between what they are learning in school and the potential uses of that knowledge in the world beyond school. A robust body of research in cognitive science confirms that such connections serve both to motivate students and to provide rich contexts for deepening their understanding of key concepts and sharpening their skills. While the focus in many schools and districts on setting and measuring high academic standards is a necessary step to educational improvement, it is also important to focus on innovations in teaching and learning, such as project-based learning, that will enlist young people in meeting those standards—particularly at the high school level, where students are passive recipients of a steady diet of lecture, whole class discussion, and drill.



Personalized Learning: In a very real sense, all kids try to make their high schools more like small schools. Deborah Meier, herself the founder of several small schools, often points out in her presentations that young people deal with the anonymity of large schools by identifying with a group of friends, and, often a particular subpopulation of students (the "jocks", the "burnouts", the "artsy ones", etc.). But, as Meier also emphasizes, most of these "small schools" are lacking in adults and decidely unacademic in focus. The size of the learning community appears to be particularly important for students who are traditionally least successful in school. Smaller, more personal schooling environments make it possible for a student to form real relationships with adults, who know the student well enough to build on his/her strengths and interests. Such learning communities also encourage conversation and collaboration among teachers as they work toward more student-centered, active learning in the classroom.

The School "Plus": Productive Learning in Workplace and Community

Even with more active and engaged forms of teaching and learning, the high school classroom is not the only, or, for some students, even the best setting for learning. It is important to look beyond the box of the insular, self-contained high school to a broader conception of secondary education that takes advantage of the rich variety of learning contexts, teachers, and resources a community has to offer. In this vision of high school reform, the student experience encompasses not only rigor and relevance in school, but also high-quality learning opportunities in workplace and community settings, where adults support and push them to do their best work.

Safe Passage to Adulthood: Connections to Higher Education

Young people in the U.S. come of age in a society that lacks a well-developed set of policies and institutional connections to help them make the transition to adulthood. Between the critical ages of 16 to 24, a disturbing number of young adults spend significant portions of time detached from school, the labor force, and family. Such isolation can be toxic in multiple doses, showing up by ages 25 to 28 in lower income, as well as in a greater chance of incarceration for men and a higher percentage of women living in poverty. Implemented well, community-connected learning not only helps students attain the learning goals of school, it also helps them to acquire the intellectual competencies, personal attributes, relationships, and networks they need to make a successful transition to higher education and careers.

What Students Know, Can, and Will Do

Working in isolation, a school, at best, tends to focus on what and how much students know. But, in today's world, with global, competitive markets, uncertain work prospects, and "make-overs" of corporations, academic knowledge is only one part of the equation. The emphasis needs to expand beyond what students know to include both what they can do—how well they can apply what they know to a particular problem or issue, and, most important, to what they will do with their knowledge and skills when they are in the world, dealing with the complexities of life. In other words, the question is not just, "Have the test scores gone up?" but, "Have students internalized the habits of mind and intelligent behaviors to approach the novel, messy, ambiguous situations and problems of the real world?"

Ultimately, improving the educational achievement of high school students is too narrow and incomplete a goal. To make a real difference in the lives of significant

numbers of young people, we must not only help them achieve academically while in high school, but we must also strengthen their engagement in and connection to productive activities that initiate them into the adult world. The challenge is to enlist all of the stakeholders in a community in guaranteeing to every student the kind of education that is only possible through community-connected learning.

Origins of the Toolkit

In the past three years, JFF has intensified its work with school districts around the country interested in community-connected learning, especially as a key aspect of reforming their high schools. In partnership with the U.S. Department of Education's New American High Schools Initiative (NAHS), JFF has collaborated with 12 communities to support their high schools in adopting key practices identified by NAHS as central to improving the performance of high school students. (See Appendix for core NAHS practices.)

Central to this work are the daily efforts of the many people whose actions create the learning environments for our youth—specifically, the practitioners, teachers, instructional leaders, and coaches in the high school, administrators and entrepreneurs in the district office, and supervisors and mentors in the workplaces and community agencies offering work-based learning opportunities. To support the work of these practitioners, JFF works closely with a team of expert-practitioners who, as members of JFF's national faculty, serve as professional development consultants to schools.

The tools presented on the following pages grow out of the faculty's ongoing efforts to develop language, protocols, templates, and examples that will help practitioners with the challenging task of implementing community-connected

learning. Because community-connected learning requires the school to situate itself in relationship to other institutions and individuals in the community, this set of practitioners includes not only teachers but also an array of partners and community mentors from the neighborhoods, workplaces, agencies, higher education institutions, and organizations surrounding the school. All of these institutions and individuals are potential collaborators with schools in helping young people develop a flexible capacity for lifelong learning, whether the context is at school, at home, in a workplace, or in the community. This guide offers practical ways to develop and support community-connected learning in the community.

Using the Toolkit

Many of the tools will be especially useful to teacher leaders, coaches, and other professionals who support the work of school practitioners. Some sections, however, are more directed to community partners, whose work on community-connected learning occurs outside of the school building. Other sections will be of use to both school insiders and outsiders.

Some of the tools included here can be used "as is" in many different situations, while others will require customization to make them effective in a particular context. It is also true that the usefulness of some of the tools will depend on such "systems" issues as the degree of coordination among key stakeholders or the coherence of the professional development and support that is available. In offering the tools in this form, the authors recognize that each small learning community, school, district, or community will ultimately make its own decisions as to when and how much to customize a tool and the optimum combination of inside and outside coaching or training they will need to support their ongoing efforts at reform.

We begin where things must begin in education today—with a discussion of accountability. In Chapter One: "Keeping Reform on Track," we offer a benchmarking process and set of tools for building mutual trust and mutual accountability among the range of stakeholders involved in creating powerful community-connected learning: schools, districts, intermediaries, businesses, and postsecondary partners. This chapter clarifies the major responsibilities of each of these key players and provides diagnostic tools for stakeholders to use in assessing where they are in relation to the benchmarks and in planning next steps.

The next six chapters offer a variety of tools, exemplars, and protocols for facilitating change and for assessing progress in achieving these benchmarks. Each set of tools corresponds to a key design principle of community-connected learning. Chapters Two and Three focus in on the school itself. Chapter Two begins with a set of activities that teachers, administrators, and school partners can use to open up a conversation about the value of community-connected learning, followed by tools that will help teachers to design rigorous and relevant classrooms. Chapter Three offers strategies for personalizing learning. These range from a diagnostic tool for developing small learning communities to ideas for how to use teacher planning time effectively.

Chapters Four and Five move beyond the classroom and the school, providing tools businesses, community partners, and educators can use to design productive learning in the workplace and to structure the transition between high school and college and careers. Chapter Six returns to the theme of evidence-driven reform, honing in on ways that teachers can connect changes they are making with concrete evidence based on student results. Finally, the book ends with a set of tools that schools and communities can use for sharing their experiences in community connected-learning with others through sponsoring "design studios" for visiting school teams.



CONNECTED LEARNING COMMUNITIES Keeping Reform on Track: Benchmarking and Action Planning

Critics of piecemeal approaches to school change liken such efforts to rearranging the deck chairs on the *Titanic*. Teachers who have participated in comprehensive whole school change efforts talk about the experience as akin to rebuilding an airplane while flying it. The implication of such comments is that the ship (or plane) will go down without bold action, but such action may, in itself, be quite dangerous.

Paralysis is the most likely result of dwelling on metaphors of disaster. Yet our high schools clearly cannot afford to remain as they are. How do schools avoid doing too little or trying to do too much at once?

The tools in this chapter are designed to help communities keep their reform efforts on track through benchmarking—a process of identifying best practices, setting goals in relation to those practices, and developing measurable indicators of progress towards those goals, including measures of student outcomes. Ideally, the partners involved in community-connected learning create a governance group that oversees and supports this process over time. The intent is to help keep community-connected learning both educationally ambitious and institutionally doable.

The first section of this chapter offers three tools for looking closely at the implementation of reform practices by each of the partners. In the second section, the focus is on measuring student outcomes in ways tied to educational changes actually taking place.

CHAPTER 1

Keeping Reform on Track: Benchmarking and Action Planning

SECTION A

Focusing on Reform Practices
Tool 1.1:

Who's Responsible for What?

Tool 1.2

Community Self-Assessment

Tool 1.3

Action Planning Guide

SECTION B

Focusing on Student Outcomes
Tool 1.4:

Multiple Measures of Student Outcomes

Authors: Cheryl Almeida Sue Goldberger Community-connected learning requires simultaneous action at many levels—not just in the school, but also at the central office and on the part of partners and stakeholders in the community. In short, this type of school reform is not just the responsibility of the school. The benchmarking tools in this section address not only what is to be built, but also who is responsible for building what.

Mutually agreed upon responsibilities give each partner a strong sense of purpose and also provide a mechanism for accountability. In a benchmarking strategy, all of the stakeholders use performance standards to guide and strengthen their own contributions to reform.

NOTES ON THE TOOLS

Tool 1.1: Who's Responsible for What?

Based on the experiences of the communities in Jobs for the Future's Connected-Learning Communities Network, this tool summarizes the major responsibilities for each of the key stakeholder groups. It is, in a sense, the "table of contents" for Tool 1.2 (see below).

Tool 1.2: Community Self-Assessment

This tool offers key benchmarks or measurable performance indicators for each of the responsibilities listed in Tool 1.1 for each stakeholder group. A team or individual involved in any component of a community-connected learning can use this tool effectively—in whole or in part. For example, a workplace team committed to establishing student internships can turn to the section on employer responsibilities. Any stakeholder group can use this tool to keep track of where it is in the overall process of building an effective community-connected learning system and to determine their action priorities.

Tool 1.3: Action Planning Guide

This tool assumes that a community has selected some implementation priorities as a result of the self-assessment and is now ready to do some action planning in relation to those priorities. This tool can be used to help stakeholders describe the steps they plan to take to achieve each priority benchmark and the evidence they will collect to chart progress.

Tool 1.1 Who's Responsible for What?

What is the PARTNERSHIP
= 7

What are	POSTSECONDARY	PARTNERS	Responsible for?
What are	BUSINESS &	COMMUNITY	PARTNERS
What are	SCHOOLS	Responsible For?	

Responsible for?

Giving students access to

college courses; offering

rigorous community- and

work-based learning

Providing intellectually

Providing all students with

intellectually rigorous and

relevant learning

experiences;

for qualified work;

connected to classroom

instruction;

Responsible for?

DISTRICTS What are

high school reform strategy; connected learning within a Endorsing communitycredit or advanced placement

Revising admissions policies

to consider performance-

Assisting in the design of

an integrated, applied

communities, mentoring, and

Personalizing the learning

through small learning

other relationship-building

features;

curriculum;

based assessments of

- comprised of leaders of each Creating a governance body stakeholder group;
 - Ensuring essential intermedi
 - ary functions are carried out; youth development and connected learning with Integrating community. workforce programs;
- ensure a smooth transition to postsecondary education and Brokering agreements to
 - career track employment;
 - Ensuring equity in policies with communityconnected learning;

Partnership supported community-connected

> connected learning through professional development; Building local capacity to implement community-

learning activities.

- Ensuring equity in community. bilingual, special education, connected learning in
- requirements and promotion Collaborating with business/ convene a school-community student outcomes: academic achievement, engagement, Promoting broad-based and high-performance community leaders to Aligning graduation partnership; behaviors;

classroom and work-based

learning;

Assisting in the design of

applied, contextual

pre-apprenticeship training;

Improving student access

to company and union

Expanding opportunities to

learn by extending the

classroom to the workplace

and the community;

curriculum; and

college success by providing academic support and Ensuring equity in

participation and success in

Developing and sustaining a

collaborative professional

community; and

Ensuring equity in

placements and field

investigations.

- mentoring when needed.
- and alternative education.

community-connected learning experiences.

Ensuring equity in



Tool 1.2 Community Self-Assessment What Are Schools Responsible For?

riorif

Go through all or selected benchmarks and rate your community's progress at achieving each one, according to the four-point scale provided. Place the number of your rating in the circle beside each benchmark. Then indicate which of these benchmarks are high priorities to accomplish in the upcoming year by placing an x in the appropriate box. Remember, you want to identify a reasonable number of priority benchmarks given the time, people, and material resources available.

SCALE: 1 Not Yet Considered 2 Planning 3 Early Implementation 4 Operational

- 1. Providing an intellectually rigorous and relevant learning experience for all students.
- a. All students complete a curriculum aligned with state and district standards that stresses applying knowledge to real-world problems.
- b. All courses of study meet college preparatory standards.
- c. Foundation skills (reading, writing, and research skills) and applied learning skills are taught across the curriculum.
- d. Teachers make regular use of inquiry- and project-based instruction to make learning relevant and promote critical thinking and problem-solving skills.
- e. Academic and career-related courses promote mastery of high-performance skills (e.g., organizing and analyzing information, problem solving, using technology).
- f. Assessments ask students to demonstrate what they know and can do by applying knowledge to real-world settings.
- g. Students prepare portfolios and exhibitions of their work, which provide evidence of learning.
- h. A flexible schedule creates opportunities for longer, more integrated instruction, learning in work and community settings, and common teacher planning time.
- 2. Personalizing the learning through small learning communities, mentoring, and other relationship-building features.
- a. Learning takes place in small learning communities where teams of teachers are responsible for common groups of students.
- b. Small learning communities have an unique identity, clear curricular focus, and clearly defined criteria for successful completion.
- c. Adults in the school act as long-term advisors and/or mentors for a small group of students.
- d. Students work with, and get to know, at least one adult outside of school through projects and/or work- and community-based learning.
- e. Students receive guidance and support to develop and achieve personal plans for future learning and work.



Tool 1.2 Community Self-Assessment What Are Schools Responsible For?

		3. Expanding students' opportunities to learn by extending the classroom to the workplace and the community.
8	•	a. Teachers use multiple strategies to connect classroom and community and work-based learning, such as, having their students research an issue related to their worksite or field placement or designing a class project that requires students to investigate a
H		contemporary community concern. b. Projects and other learning activities require students to apply knowledge to real problems, use multiple investigative methods, and create products of value beyond the classroom. c. Designated staff communicates with workplace and community placement supervisors to
	•	discuss student progress. d. Teachers collaborate with business and community partners to develop curricula that integrate learning inside and outside the classroom.
Н		 e. All students participate in at least one career-related learning experience which demonstrates features of high quality, work-based learning during their high school years. 4. Developing and sustaining a collaborative professional community.
۰	•	 a. Professional development is school-based, created collaboratively, and designed to address the instructional goals and priorities identified by the school and/or small learning community.
П		 b. Teacher teams meet regularly to assess student work, design curriculum, plan projects, and improve practice. c. Teachers regularly look at evidence of student engagement and achievement to adjust
H		teaching strategies and establish expectations for student outcomes. d. Teachers participate in making policy and practice decisions that affect teaching and learning.
		5. Ensuring equity in participation and success in community-connected learning experiences.
H		 a. Students participating in key features of the STC learning experience (e.g., work-based learning placements, postsecondary activities) represent by race, gender, and language group their enrollment in the school.
П		b. Services and supports are provided to ensure that all students are meeting new standards (e.g., tutoring, differentiated instruction).



Tool 1.2

Community Self-Assessment What Are Employers & Community Partners Responsible For?

Scale

Go through all or selected benchmarks and rate your community's progress at achieving each one according to the four-point scale provided. Place the number of your rating in the circle beside each benchmark. Then indicate which of these benchmarks are high priorities to accomplish in the upcoming year by placing an x in the appropriate box. Remember, you want to identify a reasonable number of priority benchmarks given the time, people, and material resources available.

SCALE: 1 Not Yet Considered 2 Planning 3 Early Implementation 4 Operational

1. Providing intellectually rigorous community and work-based learning placements connected to classroom instruction. a. Work- and community-based learning placements are connected to at least one academic discipline and have learning goals tied to state/district learning standards. b. Students in placements have documented opportunities to acquire and use high performance skills (e.g., use technology to organize and analyze information). c. Supervisors use strategies designed to connect work- or community-based and classroom learning (e.g., assist in a work-based investigation related to a classroom assignment). d. Adults at the placements serve as mentors to students, providing coaching, advice, and support. 2. Assisting in the design of integrated, applied curriculum. a. Business/community partners collaborate with teachers to develop curriculum that incorporates real world problems and examples. b. Teachers participate in "externships" that enable them to gain first-hand experience of how disciplinary knowledge is applied in the workplace. 3. Improving student access to company and union pre-apprenticeship training. a. Unions and corporate partners offer students pre-apprenticeship training designed as a stepping stone to entry in the unions' apprenticeship programs. b. Students participate in and successfully complete pre-apprenticeship programs. 4. Ensuring equity in participation and success in placements and field investigations. a. Students taking part in work-based placements, community investigations, and pre-apprenticeship programs represent by race, gender, and language their enrollment in the sending schools. b. Students have equal access to adults in the workplace and community who serve as coaches, mentors, and supervisors.

> c. Community partners provide direct social services or referrals to students and families. d. A written policy and formal procedure ensure that students not meeting expectations

receive appropriate services.



Tool 1.2 Community Self-Assessment What Are Postsecondary Partners Responsible For?

riority

Go through all or selected benchmarks and rate your community's progress at achieving each one according to the four-point scale provided. Place the number of your rating in the circle beside each benchmark. Then indicate which of these benchmarks are high priorities to accomplish in the upcoming year by placing an x in the appropriate box. Remember, you want to identify a reasonable number of priority benchmarks given the time, people, and material resources available.

1. Providing access to college courses.
a. High school students are enrolled in college academic and technical courses.
b. High school students receive college credit or advanced standing for high school courses

2. Revising admissions policies.

that meet the colleges' standards.

- a. Postsecondary partners accept performance-based assessments of classroom and work- or community-based learning as grounds for admission and advanced standing.
- 3. Assisting in design of contextual, applied curriculum.
- a. Postsecondary faculty collaborate with teachers to develop applied curriculum, teaching strategies for implementing curricula, and tools for assessing student work.
- 4. Ensuring equity in college success by providing tutoring, mentoring, and other follow-up supports for those who need it.
- a. Postsecondary partners provide support services such as tutoring and mentoring.
- b. Students gaining access to college courses, credit, or advanced standing represent their enrollment in the sending schools by race, gender, and language.
- c. A written policy and formal procedure ensure that students not meeting expectations receive appropriate services.



Tool 1.2 Community Self-Assessment What Are Districts Responsible For?

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Go through all or selected benchmarks and rate your community's progress at achieving each one according to the four-point scale provided. Place the number of your rating in the circle beside each benchmark. Then indicate which of these benchmarks are high priorities to accomplish in the upcoming year by placing an x in the appropriate box. Remember, you want to identify a reasonable number of priority benchmarks given the time, people, and material resources available.

SCALE: 1 Not Yet Considered 2 Planning 3 Early Implementation 4 Operational

b. Incentives and sanctions are not based solely on test scores but value performance-based

c. District uses assessment data diagnostically to help teachers and schools improve

1. Endorsing key features of community-connected learning as part of its high school reform strategy. a. District's plan for reform includes key features of community-connected learning in its statement of principles and practices. b. High-level district staff are responsible for overseeing the high school reform effort and for developing a clear strategy for advancing implementation of community-connected learning. c. District modifies identified policies and procedures to enhance schools' capacity to implement community-connected learning. d. District recognizes and rewards schools' efforts to implement key features of communityconnected learning, such as creating small learning communities. e. A stable and flexible funding stream is created by the district, organizing all sources of funding to support a unified school reform plan. 2. Collaborating with business and community leaders to establish and convene a school-community partnership. a. High-level district staff have clear responsibility for identifying and convening key business and community partners to create a school-community partnership. b. School, business, and community representatives meet regularly to develop guidelines and formats for the school-community partnership. c. High-level district staff participate in any governance/oversight group forged for the school-community partnership. 3. Promoting broad-based student outcomes, including academic achievement, engagement, and cross-cutting, high-performance competencies. a. District uses and publicly releases multiple measures of achievement, engagement,

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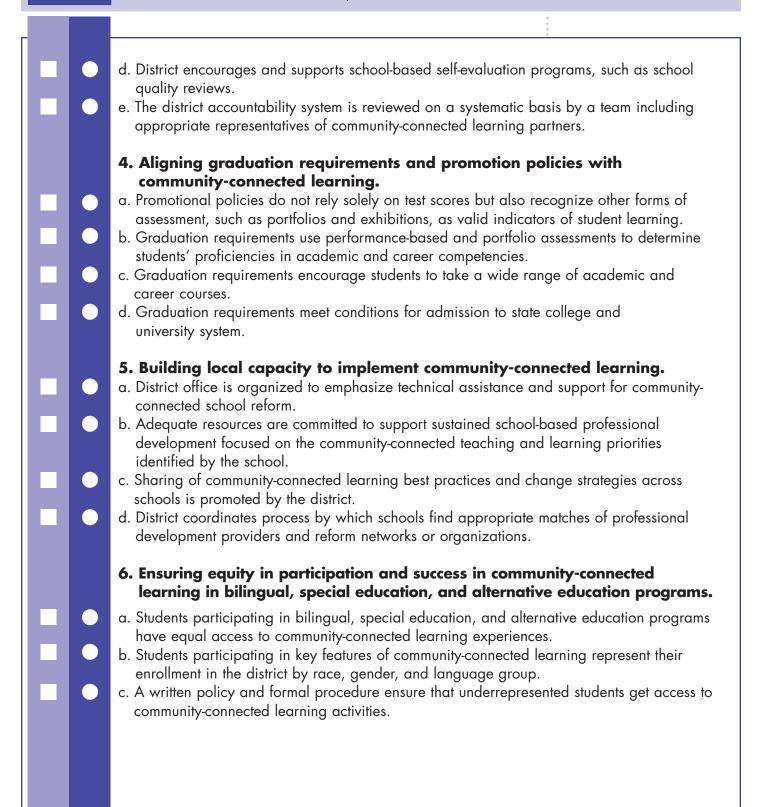
and postsecondary outcomes.

and portfolio assessments as well.

curriculum, instruction, and learning outcomes.



Tool 1.2 Community Self-Assessment What Are Districts Responsible For?





Tool 1.2 Community Self-Assessment What Is the Partnership Responsible For?

Go through all or selected benchmarks and rate your community's progress at achieving each one according to the four-point scale provided. Place the number of your rating in the circle beside each benchmark. Then indicate which of these benchmarks are high priorities to accomplish in the upcoming year by placing an x in the appropriate box. Remember, you want to identify a reasonable number of priority benchmarks given the time, people, and material resources available.

SCALE: 1 Not Yet Considered 2 Planning **3 Early Implementation** 4 Operational

- 1. Creating a multi-stakeholder governance body comprised of high-level leaders representing each of the key partners to lead the partnership.
- a. A leadership body comprised of high-level leaders (e.g., the superintendent, chief executives of local corporations, college administrators, and directors of community-based agencies) meets regularly.
- b. The leadership group oversees the participation of business, higher education, and community partners in community-connected school reform.
- c. The group creates a vision for community-connected learning and develops strategies for advancing its implementation across the community.
- d. The group sets policy to guide the work of partnership members.
- e. The group builds public support for community-connected education reform.
- f. The group sets measurable goals and uses data to assess progress and build mutual accountability.
- 2. Ensuring that the intermediary functions essential to the success of the partnership, such as managing worksite and community placements, are carried out.
- a. An organization, or staff within one or more organizations, carries out essential connecting functions between schools and community/workplaces.
- b. The intermediary staff recruit new business, school, community, and postsecondary partners and guide them to more extensive and intensive involvement.
- c. They manage and coordinate work- and community-based placements.
- d. The quality of work- and community-based placements is monitored by intermediary staff against clear criteria for quality placements endorsed by the leadership group.



Tool 1.2 Community Self-Assessment What Is the Partnership Responsible For?

	3. Integrating community-connected learning with youth development and
	workforce policies and programs.
	a. A "map" of community-connected learning, youth development, and workforce programs
	identifies commonalties and opportunities for stronger linkages.
	b. Program funding is linked whenever possible to provide maximum services to youth and to
	create a unified approach to education and workforce reform.
	4. Brokering agreements among partners to create postsecondary
	opportunities and ensure a smooth transition from high school to
	postsecondary education and career track employment.
	a. Employment for high school graduates in sectors with high employment growth, potential
	for advancement, and well-paying jobs is expanded through collaboration among
	employers, community organizations, and public agencies.
	b. Career-oriented education and training is linked with labor market needs and high-wage
	career opportunities.
	c. Formal agreements between postsecondary partners and schools (e.g., credit-granting
	arrangements, performance-based admissions) are negotiated to enhance opportunities available
	to graduates.
	d. Successful graduates of community-connected learning programs are given hiring
	preferences for entry-level positions with opportunities for advancement.
	e. Community-based career counseling and placement services and connections to adult
	workforce training programs are readily accessible to young people.
	5. Ensuring equity in participation and success in partnership supported
	community-connected learning activities.
	a. Partnership reviews documentation to ensure that students participating in community-
	connected learning activities (e.g., work-based learning, mentorship programs) represent their
_	enrollment in the district by race, gender, and language group.
	b. Outcome data is used to make sure students representing various groups have equitable
	success rates.
	c. A written policy and formal procedure are in place to address concerns about equitable
	participation and success among groups.

After you have done your Community Self-Assessment; complete the Action Planning Guide for each of the benchmarks you have selected as a priority. Following these steps may facilitate your planning process. The tables referred to are found on the following pages.

Step 1

Begin by writing down the benchmark you want to achieve in the coming year in the column labeled **PRIORITY BENCHMARK** of Table 1.

Step 2

Next, lay out your current practice in relation to the benchmark in the column labeled **CURRENT PRACTICE**.

Step 3

To help you identify the action steps you need to take to close the gap between "what is" and "what is desired," jot down the opportunities and obstacles for each of the benchmarks in Table 2.

Step 4

Using these as a guide, devise action steps for reducing the barriers and achieving the benchmarks and place them in the column labeled **ACTIONS** of Table 1.

Step 5

Then use Table 3 to keep track of your action steps and deadlines—the what, who, and when of getting it done.

Step 6

Finally, determine how you will know you have achieved your objectives. That is, what is the evidence of success. Write down your key indicators of success in Table 4.

Step 2 CURRENT PRACTICE What IS in Place Now?	Step 4 ACTIONS What Are Steps to Close Gap Between What is and What Is Desired?	Step 1 PRIORITY BENCHMARK What Do We Want to See in Place?

Ste	р 3
------------------	-----

Step 3:				
BENCHMARK OPPORTUNITIES, AND OBSTACLES FOR CLOSING GAP OPPORTUNITIES OBSTACLES				

Step 5 GETTING IT DONE				
What's the Action Step? Who's Responsible? When Will it Happen?				

Step 6		
WHAT'S THE EVIDENCE		
What's the Benchmark?	How Will You Know You Have Achieved Benchmarks?	
	Indicate what documents, tools, measures, and data you will use:	
	2 milestee south steerestees, seets, measurest, and the steer seets	

SECTION B Focusing on Student Outcomes

The "acid test" of community-connected learning, or any other education reform, is student performance. At the same time, a focus on student academic achievement too early in a reform process can lead to premature judgments that undermine the environment that is needed to protect and nurture innovation.

It is critical to make good decisions about what to measure when. The tools offered in Part A of this chapter give communities a way to assess the progress of the partners in implementing practices that prepare the groundwork for improved student outcomes. If these practices are not in place, it makes little sense to look for improvements in student outcomes.

In other words, it will dilute the outcome results if students who go through intensive work-based learning experiences are grouped, for example, with students who get minimal career exposure. Not only will this bury successes under failures, but it also will allow key information—such as which community-connected learning practices contribute most to student outcomes—to remain hidden. This is vital information for making decisions about program improvements. One way to proceed is to group students by the intensity of their community-connected learning experience and only use indicators of student outcomes that could reasonably be expected to improve given the type of experience the students have had.

NOTES ON THE TOOL

Tool 1.4: Multiple Measures of Student Outcomes

This tool offers a framework of multiple measures for assessing the impact of community-connected learning on students. It provides a checklist of indicators or measures a community can use to go beyond the assessment of academic achievement provided by standardized tests, and to look as well at engagement and persistence in school and at postsecondary outcomes.

Of course, some of these performance indicators are easier to measure than others. Longitudinal data, such as postsecondary success, are difficult to collect, and it may take years before meaningful results emerge. But in an education reform process as far reaching as community-connected learning, the most readily available indicators, such as test scores, may not be the best ones nor the most telling. The student outcome measures listed in the tool reflect the range of performance indicators needed to tell the full education-change story. It is up to community partners to be strategic about which indicators are used when.

- 1. Check the squares (\square) for measures you currently gather
- 2. Check the stars (🌣) to indicate priority measures you would like to gather.

 I. Acquisition of skills and dispositions required for postsecondary and career success by students participating in community-connected learning. A. Achievement of academic standards. 	
A. Achievement of academic standards.	
#/% of students meeting high school graduation requirements #/% of students demonstrating academic proficiency on state, district, and	
school assessments	
	ırses
#/% of students who meet academic requirements for entry into the state's universi	У
or four-year college systems	
#/% of students who do not require remedial course work at postsecondary level	
(i.e., pass course placement tests)	
B. Attainment of SCANS skills ¹ .	
☆ □ #/% of students demonstrating basic work-readiness skills	
(e.g., diagnosing a non-routine problem or planning a multi-step task)	
C. Increased engagement in school.	
#/% of students with high attendance rates as determined by	
district standards (by grade level)	
#/% of students who meet standards of behavior (e.g., who have no suspensions)	
#/% of students who enroll in more challenging, high level courses	
#/% of students in extracurricular activities at school	
D. Greater equity in achievement and engagement.	
Rate of improvement over time in student achievement and engagement measures by race, native language, gender, socio-economic status, and disabled s	tatus
Reduction of differences in student achievement and engagement by race,	aius
language group, gender, socio-economic status, and disabled status	

II. Achievement of postsecondary and career success by students participating in
community-connected learning.
A. Completion of postsecondary programs of study.
#/% of students enrolled full-time/part-time in a:
→ 4-year university or college
• 2-year Associate of Arts or Science program
 4-year university or college 2-year Associate of Arts or Science program union/firm sponsored apprenticeship non-degree occupational training program of at least one year #/% of students meeting yearly credit requirement to maintain
• non-degree occupational training program of at least one year
#/% of students meeting yearly credit requirement to maintain
good standing in postsecondary program
#/% of students who complete a postsecondary education or training program #/% of students who earn technical and professional certificates and licenses
B. Attainment of career-track employment.
 High school graduates not enrolled in postsecondary education:
#/% who obtain and maintain full-time employment:
🖈 🔲 🔹 related to a career area of study
 related to a career area of study unrelated to a career area of study #/% who obtain and maintain employment in a primary labor market job
🖈 💷 #/% who obtain and maintain employment in a primary labor market job
within two years of graduation (as measured by wage rate and benefits, skill requirements
of position, and opportunities for promotion)
2. High school graduates enrolled in postsecondary education:
#/% who work full-time/part-time #/% of who work in a job related to their career area of study #/% of students who obtain and maintain high-skilled employment related
to their career area of study (as measured by wage and benefit level, and education and
skill requirements of positions)
C. Greater equity in postsecondary and career success.
Rate of improvement over time in percentage of students enrolling in and
completing postsecondary programs and securing high-skilled employment by race,
language group, gender, socio-economic status, and disabled status
Reduction of differences in postsecondary and career success by race, language group,
gender and socio-economic status and disabled status



CONNECTED LEARNING COMMUNITIES Achieving Rigor and Relevance

hen students ask—as they frequently do—"why do I need to know this?" they are searching for a more apparent connection between what they are learning in school and the uses of that knowledge in the world beyond school. A robust body of cognitive research confirms that such connections serve both to motivate students and provide rich contexts for their learning. The challenge for teachers is to create a learning environment that engages students in studies that are both rigorous and relevant. This is a central design principle of community-connected learning and the one that teachers identify as most central to their work.

The tools, protocols, and examples in this chapter are designed to help a school community grapple with the many issues and questions that arise in trying to put this design principle into practice. The chapter is organized into three sets of tools for facilitating this process: Section A "Conversation Starters," Section B "The 6 A's of Instructional Design," and Section C "Designing for Multiple Outcomes." Each set begins with a description of the tools that follow, along with ideas for how, when, and why such tools could prove useful to a school community.

CHAPTER 2

Achieving Rigor and Relevance

SECTION A

Conversation Starters

Tool 2.1:

Most Memorable Learning Experiences

Tool 2.2

Projects Adults Do

Tool 2.3

Personal Journey Map

Tool 2.4

School Journey Map

Tool 2.5

Shadowing a Student

SECTION B

The Six A's of Instructional Design

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Examining a Project

Tool 2.7:

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The Six A's for Senior Projects

SECTION C

Designing for Multiple Outcomes

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Tool 2.11:

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Scaffolding a Project

Tool 2.13:

The Devil is in the Details

Tool 2.14:

Project Based Learning Design Template

Authors:

Adria Steinberg Michelle Swanson

Stephan Knobloch

Esther Bobowick

SECTION A Conversation Starters



Rex Putnam High School in North Clackamas, Oregon, created a school journey map by inviting current and retired staff members, parents, and other "friends of Rex Putnam" to an evening of wine, cheese, and brainstorming.

One of the hardest tasks in a school community's journey to reform is building the faculty's commitment to and ownership of the change process. The following five exercises help lay the groundwork for school-wide conversations about some of the most basic routines and assumptions of the high school.

NOTES ON THE TOOLS

Tool 2.1: Memorable Learning Experiences

This tool helps to build trust and a collegial atmosphere while at the same time raising a group's awareness of the value of community-connected learning. Even long-term colleagues can learn new things about one another when they engage in this activity.

Tool 2.2: Projects Adults Do

This exercise helps to remind teachers that although their work, home, and community lives tend to be organized around complex, somewhat ambiguous projects, students get few opportunities in school to develop the competencies and dispositions involved in successful completion of such projects.

Tool 2.3: Personal Journey Map

Often, professional development for teachers, like much of schooling for students, is based on the faulty assumption that people are empty vessels into whom new information can be "poured." This exercise recognizes that each individual is at a different place in their own journey. An example of a teacher's journey map illustrates the creativity with which people approach this task.

Tool 2.4: School Journey Map

When schools embark on a process of change, they—like individuals—are almost never starting from scratch. This exercise provides a way to acknowledge the efforts people have made in the past and to come to a group agreement as to where the school is in its journey. It can be instructive to have several different groups within a school complete the exercise and then share their different versions of the school's journey. Accompanying the tool is an example of a Journey Map from the Rex Putnam School in North Clackamas, OR.

Tool 2.5: Shadowing a Student

This is another technique that some schools use to ground themselves in the experience of their students and raise questions about where, when, and how students are most productive in their learning. It includes the story of how Sir Francis Drake High School in San Anselmo, California, used shadowing a student for a day as a catalyst for reform.

This tool works best when you divide into pairs to compare what you come up with, followed by whole-group sharing. It can also be modified to elicit a more targeted set of experiences e.g., most memorable learning experiences while in high school.

As you think about who you are now, what you do, how you live your life, which of your learning experiences comes to mind as having played a significant role in your journey? (The experience can be inside or outside of school.)

- Take a few minutes to jot down some notes about that experience.
- Meet with a partner and each describe the learning experience you remember.
- With your partner identify and record the main qualities or characteristics of your memorable learning experiences.

Qualities/Characteristics:

Share the qualities/characteristics you have identified with your partner with the rest of the group. As a group, discuss possibilities for creating such memorable learning experiences in your cluster/team/classroom. Keep a record of ideas to take back to your school.

Ideas from Group Discussion:

Think about a major project in your own life, something that you are currently engaged in either at work, at home, or in your community.

- Take a few minutes to jot down some notes about all of the aspects of that experience and what it has given you a "need to know."
- Meet with a partner and each describe your project. Identify and record the skills, knowledge, and personal qualities required by your projects.

Skills:

Knowledge:

Personal qualities/attributes:

Consider how you are determining whether your project is successful:

What criteria are you using?

Who besides you will evaluate its success?

Share the list you have identified with your partner with the rest of the group. As a group, discuss possibilities for bringing this type of learning inside the curriculum of your cluster/team/classroom/school. Keep a record of ideas to take back to your school. *Ideas from Group Discussion:*

The purpose of creating a personal journey map is to identify key events, milestones, factors, questions, changes, and influences that have shaped your professional life as a teacher and to record these in a visual or graphic way. You can return to a journey map periodically to update it and reflect on how your practice—individually and collectively—is changing.

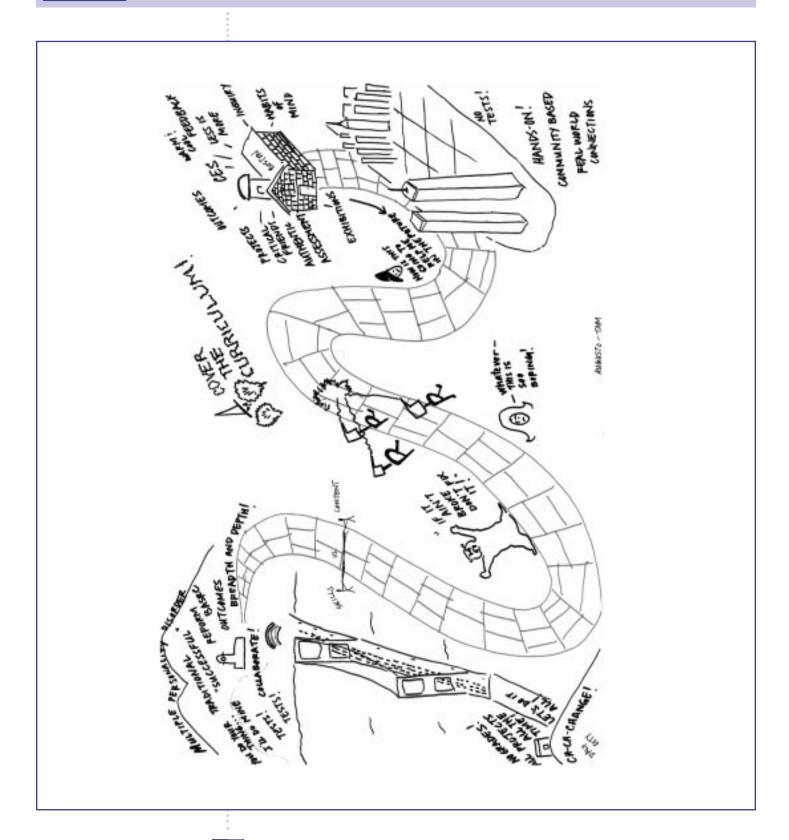
- Create your map (on 11" X 17" paper or chart-pack, if available) using markers. It can take the form of a timeline, a board game, a graph, or any other visual representation that helps you to present your journey.
- When everyone has finished, share your maps with each other. One way to do this is to hang up all the maps and do a gallery walk.
 - During the walk, you can jot down questions you have about specific maps and/or note any common threads you see running through the maps.
- As a follow-up, jot down notes on the following questions:
 - What are my ongoing challenges and struggles?
 - How do I define myself now in relation to these roles:
 - Learner

- Assessor
- Designer
- Collaborator/Colleague
- Researcher
- To do the best possible job as a professional, what else do I need to learn/know?
 - How would I learn it best?
 - What support/resources do I need?
- Another option is for you to pair up and share your maps with a partner. Trade maps and identify where you see evidence of your partner's role as a:
 - Learner

Assessor

Designer

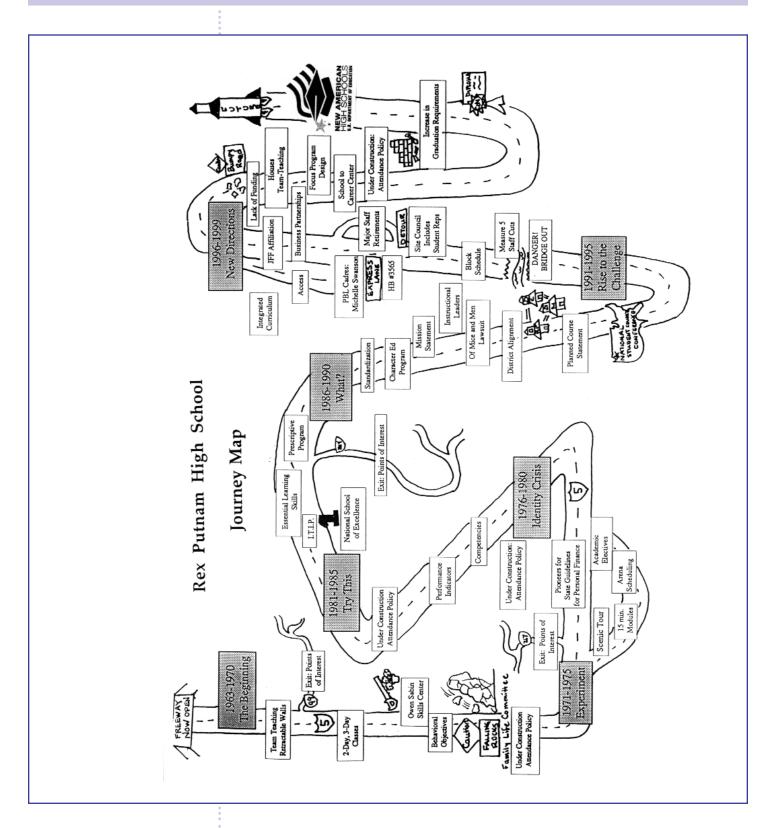
- Collaborator/Colleague
- Researcher



Tool 2.4 School Journey Map

In setting a course for where you are going, it's very useful to know where you've been. The purpose of creating a school journey map is to identify key events, milestones, factors, changes, and influences that have occurred at your school over time and record these in a visual and graphic way. Once you have created these, you can return to them periodically to update them and reflect on how your school is changing.

- Create your map on chart-pack paper (about 3' x 6') using markers. It can take the form of a timeline, a board game, a graph, or any other visual representation that helps you to present your school's journey.
- When creating your map, consider the following questions:
 - What key events have been important in shaping our school over time?
 - Who has been involved?
 - What obstacles has the school overcome?
 - What influences, positive and negative, have there been?
 - What have been major accomplishments and setbacks?
 - What key issues and questions are we confronting now?
 - What are we working on as a school? Why?
 - Why do we think that it will make a difference?
 - Who is influencing our work?
- If more than one group is creating a map, share your maps with each other. Discuss the similarities and differences among the various school journeys depicted by the maps.



Sample Questions to Guide Shadows

Questions can range from broad:

- How much learning takes place in a typical day of a student in our school?
 To the more specific:
- Where does learning draw on more than one discipline?
- When does the student seem most engaged?

Purpose and Plan:

As an early step in their reform efforts, teachers at the Sir Francis Drake High School in San Anselmo, California, decided to try to understand more about the use of time in their school. To this end, several veteran teachers volunteered each to shadow a student from the start of school through an entire day. Attending not only classes, but also co- and extra-curricular activities, shadowing teachers were charged with the task of preparing a report back to the faculty on "How much learning takes place in a day at Drake?"

Observations:

The answer they came back with was a surprising "Not much." Although the teachers were aware of potential difficulties with the current schedule, with its allowance of 50-minute blocks for classes, they found that the day was more disjointed and frequently disrupted and the learning more superficial than they expected. After moving with a student through a seven-period day, the teachers returned to the faculty with a new appreciation for the way in which students' academic lives seemed bound by the clock and by the division of the day into discrete academic disciplines.

Yet there were times during the day when students truly appeared engaged in learning. These times, the shadowing teachers noted, tended to occur in the subjects usually considered peripheral and in extra-curricular activities. All of these learning environments—the arts, speech, yearbook, music, video production, debate, and athletics bridged into less structured (and more abundant) after-school hours. These environments also shared an emphasis on performance and well-defined criteria for excellence.

Results:

These observations led the faculty to two new questions: "What kind of learning do we want students to display?" and "How do we bring that learning about?" And, ultimately, their exploration of these questions led to increasing support for a block schedule that includes twice-weekly periods for student advising and club activities.

Debriefing the Shadow Experience

Provide time and a structure to debrief the shadowing experience.

For example,

- Discuss results with the student's teachers and coaches;
- Write a summary of observations and impressions;
- Participate in a question and answer period with teachers and other staff; and
- Do a formal presentation to the staff on the "findings" from the shadow.

When teachers remember significant learning experiences in their own adolescence and then share their best teaching unit, project, or curricular design, they are often surprised to see that the same basic list of features almost invariably emerges: authenticity, academic rigor, adult connections, applications of knowledge, active exploration, and assessment practices that help learners to internalize high standards. In helping teachers design for community-connected learning, Jobs for the Future uses a framework, developed by Adria Steinberg, to highlight these Six A's.

The Six A's of Instructional Design

- 1. **Authenticity:** using a real-world context (e.g., community and workplace problems) to teach academic and professional disciplines.
- 2. **Academic Rigor:** involving students in using methods of inquiry central to academic and professional discipline(s) and requiring higher-order thinking skills.
- 3. **Applied Learning:** engaging students in solving semi-structured problems calling for competencies expected in high-performance work organizations (e.g., teamwork, problem solving, and communication).
- 4. **Active Exploration:** Extending learning beyond the classroom to work internships, field-based investigations, and community explorations.
- 5. **Adult Connections:** Providing students with adult mentors and coaches from the wider community.
- 6. **Assessment:** Involving students in regular exhibitions and assessments of their work in light of personal, school, and real-world standards of performance.

Teachers find this framework especially helpful as they struggle to create a bridge between two important trends in education—the use of external standards to drive school-level changes in curriculum, pedagogy, and organization and the creation of community-based opportunities for students' immersion in the adult world of work and learning. The Six A's represent an interweaving of these two currents of thought and activity, and hence help to define concretely the key features of high-quality, community-connected learning.

By calling attention to key characteristics of this type of learning, these criteria are equally applicable to projects that originate inside and outside of the classroom; they serve as a reminder that when projects originate from academic subject matter, they can reach out to community and workplace concerns, and when they originate from real problems, they can be structured to connect back to academic fields of study and to provide practice in vital academic skills.



NOTES ON TOOLS

Tool 2.6: Examining a Project

One of the best ways for a group of educators to understand the Six A's is to use them as a lens for looking at a completed project. This matrix will help them to see what each of the "A's" looks like in practice. An example illustrates how one teacher made use of this tool.

Tool 2.7: Tweaking a Project or Assignment

Teachers can find it daunting to envision themselves designing a project that embodies the Six A's. We have found that one of the most straightforward starting points is for teachers to modify assignments they already give. In using this tool, teachers bring in major assignments they have given in the past, preferably assignments that have not resulted in the hoped for quality of student work. Looking at the assignment next to the Six A's checklist, they brainstorm ways to strengthen one or more of the "A's."

Tool 2.8: The Six A's for Senior Projects

Teachers in the Health and Bioscience Academy of Oakland Technical High School in Oakland, California use the Six A's as a framework for the senior project required of all students. During the fall semester, students receive an announcement informing them of the Senior Project requirements, reproduced in this tool for use by other schools.

Traditional Assignment: Research Paper on a Disease

- Select a disease to study
- Go to the library and do research
- Write ten pages
- Use proper essay form
- Include a bibliography

Six A's Assignment: Project on a Community Health Issue

- Develop family medical histories
- Write a proposal to study health issue of personal or community concern
- Keep a research log
- Produce a newsletter
- Develop lesson plan and materials for underserved population
- Present to real audience



This tool works equally well with small or large groups of teachers. You can have a teacher participant present a completed project, or you can watch a videotape of a project presentation by a teacher in another part of the country. As you observe the presentation, record any evidence you see of each of the Six A's in the **Evidence** column of the tool. Once the presentation is complete, share your observations with each other.

Six A's	Criteria	Evidence
Authenticity	Project emanates from a problem or question that has meaning to the student.	
	Problem or question is one that might actually be tackled by an adult at work or in the community.	
	Students create or produce something that has personal and/or social value beyond the school setting.	
	•	
	Students acquire and apply knowledge central to one or more discipline or content area.	
Academic Rigor	Students use methods of inquiry central to one or more discipline (e.g., to think like a scientist).	
	Students develop higher-order thinking skills and habits of mind (e.g., searching for evidence, taking different perspectives).	
Applied Learning	Students solve a semi-structured problem (e.g., designing a product, improving a system, or organizing an event) that is grounded in a context of life and work beyond the school walls.	
	Students acquire and use competencies expected in high- performance work organizations (e.g., teamwork, problem solving).	
	Work requires students to develop organizational and self-management skills.	

Six A's	Criteria	Evidence
	Students spend significant amounts of time doing field-based work.	
Active xploration	Students engage in real investigations using a variety of methods, media, and sources.	
	Students communicate what they learn through presentations.	
	Students meet and observe adults with relevant expertise and experience.	
Adult onnections	Students work closely with at least one adult.	
	Adults collaborate on the design and assessment of student work.	
	Students reflect regularly on their learning, using clear project criteria that they have helped to set.	
Assessment	Adults from outside the classroom help students develop a sense of the real-world standards for this type of work.	
	There are opportunities for regular assessment of student work through a range of methods, including exhibitions and portfolios.	



Jackie Begrin, a teacher in the Visual Arts Academy at Oakland High School in Oakland, California, used the Six A's tool to refine her sixweek project on writing business plans. The project enables them to participate in the economic development of their community. In the table below, Jackie identifies how her project design addresses each of the Six A's.

Six A	Criteria	Evidence
Authenticity	 Project emanates from a problem or question that has meaning to the student. Problem or question is one that might actually be tackled by an adult at work or in the community. Students create or produce something that has personal and/or social value beyond the school setting. 	 Student teams create a business plan based on the needs of their community. The project is designed to increase students' economic awareness and allow them to participate in the economic development of their community. Students learn that you can become an entrepreneur regardless of your chosen field.
	-	
Academic Rigor	 Students acquire and apply knowledge central to one or more disciplines or content areas. Students use methods of inquiry central to one or more disciplines (e.g., to think like a scientist). Students develop higher-order thinking skills and habits of mind (e.g., searching for evidence, taking different perspectives). 	 Students acquire and apply knowledge from a number of content areas, including: Small Business Management English Marketing Economics Students develop higher order thinking skills and habits of mind, such as; Questioning and problem posing Ingenuity, originality, and insightfulness Flexibility in thinking



Student teams from Jackie's class compete with teams from Emeryville High School to create the best business plan. The project culminates in student presentations at U.C. Berkeley Haas School of Business before an audience of peers, teachers, parents, business mentors, and other interested community members.

Six A's	Criteria	Evidence
Applied Learning	 Students solve a semi-structured problem (e.g., designing a product, improving a system, or organizing an event) that is grounded in a context of life and work beyond the school walls. Students acquire and use competencies expected in high-performance work organizations (e.g., teamwork, problem solving). Work requires students to develop organizational and self-management skills. 	 Students work in teams and present a written and visual piece for their project. Students use competencies expected in high-performance work organizations, such as teamwork and appropriate use of technology. The work requires students to develop organizational and self-management skills in meeting benchmarks, planning, and managing tasks.
	•	
Active Exploration	 Students spend significant amounts of time doing field-based work. Students engage in real investigations using a variety of methods, media, and sources. Students communicate what they learn through presentations. 	 Students spend time inside and outside of class doing research, interviewing people in the industry, and comparing and contrasting various businesses and their competition. Students engage in real investigations, using a variety of methods, media, and sources. Students are expected to communicate what they are learning through a written report and oral presentation.

Six A's	Criteria	Evidence
Adult Connections	 Students meet and observe adults with relevant expertise and experience. Students work closely with at least one adult. 	Students meet, observe, and/or interview adults with relevant expertise and experi- ence, such as small business owners and marketing analysts.
	Adults collaborate on the design and assessment of student work.	
	•	•
	Students reflect regularly on their learning, using clear project criteria that they have helped to set.	 Project has clear benchmarks for students. It culminates in a final oral and written presentation to teachers, adults, and peers.
Assessment	Adults from outside the classroom help students develop a sense of the real-world standards for this type of work.	 Students receive ongoing teacher feedback. Students engage in team assessment using the criteria they developed with the teacher.
	There are opportunities for regular assessment of student work through a range of methods, including exhibitions and portfolios.	



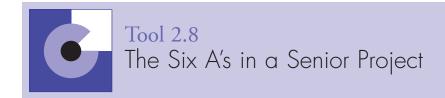
Tool 2.7 Tweaking a Project or Assignment (Self-Assessment)

Six A's	Criteria	Self-A	sses	Self-Assessment	Ideas for Improvement
	Project emanates from a problem or question that has meaning to the student.	Θ	<u></u>	®	
Authenticity	Problem or question is one that might actually be tackled by an adult at work or in the community.				
	 Students create or produce something that has personal and/or social value beyond the school setting. 				
	•				
	 Students acquire and apply knowledge central to one or more disciplines or content areas. 	Θ	®	(E)	
Academic Rigor	Students use methods of inquiry central to one or more discipline (e.g., to think like a scientist).				
	 Students develop higher order thinking skills and habits of mind (e.g., searching for evidence, taking different perspectives). 				
	Students solve a semi-structured problem (e.g., designing a product, improving a system, or organizing an event) that is grounded in a context of life and work beyond the school walls.	Θ	⊗	© (4)	
Applied Learning	 Students acquire and use competencies expected in high-performance work organizations (e.g., teamwork, problem solving). 				•
	Work requires students to develop organizational and self-management skills.				
		(L)	D = well developedD = not addressed	① = well developed④ = not addressed	



Tool 2.7 Tweaking a Project or Assignment (Self-Assessment)

Six A's	Criteria	Self-	Asses	Self-Assessment	Ideas for Improvement
	Students spend significant amounts of time doing field-based work.	Θ	®	®	
Active Exploration	Students engage in real investigations using a variety of methods, media, and sources.				
	Students communicate what they learn through presentations.				
	•				
	Students meet and observe adults with relevant expertise and experience.	Θ	®	(E)	
Adult Connections	Students work closely with at least one adult.				
	Adults collaborate on the design and assessment of student work.				
	•				
	 Students reflect regularly on their learning, using clear project criteria that they have helped to set. 	Θ	® ®	®	
Assessment	Adults from outside the classroom help students develop a sense of the real-world standards for this type of work.				
	 There are opportunities for regular assessment of student work through a range of methods, including exhibitions and portfolios. 				
		(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	1) = well developed4) = not addressed	① = well developed④ = not addressed	



Teachers in the Health and Bioscience Academy of Oakland Technical High School in Oakland, California, developed this framework for senior projects, based on the Six A's. Students are expected to respond to the Six A's questions in their senior project proposal.

Project Element Six A's	Guiding Questions
Authenticity	 Where in the world beyond school might one see the problem or question addressed by your project tackled by an adult at the workplace or in the community? Why is the problem or question meaningful to you?
Academic Rigor	 What is the central problem or question addressed by your project? What knowledge area(s) and central concepts will your project address? What habits of mind will you develop? What learning standards will you address through your Senior Project?
Applied Learning	 What will you actually do with the knowledge you have gained? How will you apply what you have learned and researched to a complex problem (e.g., designing product, improving a system, creating an exhibit, organizing an event)? Will your project be career-related? What technology, if any, will it involve?
Active Exploration	 What field-based, community based, and/or work-based activities does the project involve? What primary and secondary research will you conduct? What methods and sources of information will you use in your search?
Adult Connections	 Who from the community, workplace, postsecondary and industry partnerships, or Academy will serve as your Coach/Advisor/Mentor? What expertise and/or experience relevant to your project can he/she/they provide? How will you use the opportunity to work with and/or observe adults at work to help you develop a broader understanding of your Senior Project Topic?
Assessment	 How will you know your Senior Project is a success? What are your criteria for measuring your achievement of the disciplinary knowledge, habits of mind, and applied learning goals of your project? What evidence will you use to demonstrate your progress? What deliverables will you need to complete prior to the final Senior Project Exhibition?

It is hard enough to design classroom instruction to help students develop their knowledge about the subject matter of the course. But, as we stated in the introduction to the toolkit, the outcomes expected from education today go far beyond what or how much students KNOW. The expectation is that schools will also have an effect on what students CAN DO—how well they can apply this knowledge, and what they WILL DO—what they're inclined to do given the habits of mind and work they've developed.

What Students	TEACHER FOCUS
KNOW	■ Activities: What will we do on Monday?
RIOW	■ Content: What's most important for my students to know?
	■ Processes: What will help my students to "think like a scientist or historian?"
CAN DO	■ Performances: How will I know if students can apply what they know?
CAIT DO	■ Habits of Mind: How can I help students probe for evidence, point of view, and connections?
WILL DO	■ Intelligent Behaviors: How will this class help students know how to behave when they don't know? Can they become persistent, flexible, accurate problem-posers and solvers?

Authentic, community-connected learning projects are important precisely as a way to combine knowing, doing, and developing important habits of mind and work. But they are challenging to do well. One strategy we have found to help teachers and students involved in such projects is to make explicit the high-performance behaviors (e.g., teamwork, communication, solving an ambiguous problem), the habits of mind and personal attributes (e.g., persistence, learning from mistakes, pushing for accuracy and precision) that this kind of teaching and learning requires. These are the process skills that will serve as the "operating system" for project work in school and, ultimately, will be central to success in the emerging economy.

This section contains two lists of high-performance skills and behavior. The first, developed by the U.S. Department of Labor's Secretary's Commission on Attaining Necessary Skills, (popularly known as the SCANS skills) represents what business and educational leaders believe to be the most important skills for advancement in a technology-driven economy. The second, is a list of 16 habits of mind, defined as dispositions displayed by intelligent people in response to problems, dilemmas, and enigmas, the resolutions of which are not immediately apparent. These are excerpted from Habits of Mind: A Developmental Series, by Arthur Costa and Bena Kallick. (Association for Supervision and Curriculum Development, 2000).

In designing instruction, it is important for teachers to keep all of the outcomes in mind. It is also very important for teachers, possibly in collaboration with community partners, to think about how they will provide scaffolding for student success. This means considering what students will actually do as part of the project, where these activities will take place (the classroom, technical labs, or community), and, most important, how students' work will be supported and assessed.

NOTES ON THE TOOLS

Tool 2.9: High-Performance Behaviors

This exercise is designed to stimulate teachers' thinking about strategies for teaching and for assessing high-performance skills and behaviors.

Tool 2.10: Assessing Habits of Mind in a Project or Internship Developed by the Fenway High School in Boston, this tool helps guide teachers and work-site mentors as they assess the degree to which students have developed the habits of mind most central to their future success.

Tool 2.11: Framing the Questions

This is a process that teachers, students, and community partners can use for developing overarching questions to guide a project. It also includes key criteria a question should meet.

Tool 2.12: Scaffolding a Project

These are guidelines teachers can use in deciding how they will support students to be successful in their project activities. A complete example follows.

Tool 2.13: The Devil in the Details

In designing a project, teachers have to think through not only what their students will be investigating and why, but how they will organize the class and what instructional strategies they will use to make the learning productive.

Tool 2.14: Project-Based Learning Design Template

This is a comprehensive planning tool that incorporates many of the essential elements of rigorous and relevant learning presented in this chapter: the SCANS skills, habits of mind, and the Six A's. Its usefulness as a tool depends on teachers developing an understanding of each of these elements. Excerpts from a completed example follow.

FIVE COMPETENCIES

Resources: Identifies, organizes, plans, and allocates resources.

- A. Time. Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules.
- B. Money. Uses or prepares budgets, makes forecasts, keeps records, and makes adjustments to meet objectives.
- C. Material and facilities. Acquires, stores, allocates, and uses materials or space efficiently.
- D. Human resources. Assesses skills and distributes work accordingly, evaluates performance, and provides feedback.

Interpersonal: Works with others.

- A. Participates as member of a team. Contributes to group effort.
- B. Teaches others new skills.
- C. Serves clients or customers. Works to satisfy customers' expectations.
- D. Exercises leadership. Communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies.
- E. Negotiates. Works toward agreements involving exchanges of resources, resolves divergent interests.
- F. Works with diversity. Works well with men and women from different backgrounds.

Information: Acquires and uses information.

- A. Acquires and evaluates information.
- B. Organizes and maintains information.
- C. Interprets and communicates information.
- D. Uses computers to process information.

Systems: Understands complex relationships.

- A. Understands systems. Knows how social, organizational, and technological systems work and operates effectively with them.
- B. Monitors and corrects performance. Distinguishes trends, predicts impacts on system operations, diagnoses systems' performance, and corrects malfunctions.
- C. Improves or designs systems. Suggests modifications to existing systems and develops new or alternative systems to improve performance.

Technology: Works with a variety of technologies.

- A. Selects technology. Chooses procedures, tools, or equipment including computers and related technologies.
- B. Applies technology to task. Understands overall intent and proper procedures for setup and operation of equipment.
- C. Maintains and troubleshoots equipment. Prevents, identifies, or solves problems with equipment, including computers and other technologies.

A THREE-PART FOUNDATION

Basic Skills: Reads, writes, performs arithmetic and mathematical operations, listens, and speaks.

- A. Reading. Locates, understands, and interprets information in prose and in documents such as manuals, graphs, and schedules.
- B. Writing. Communicates thoughts, ideas, information, and messages in writing, and creates documents such as letters, directions, manuals, reports, graphs, and flow charts.
- C. Arithmetic/Mathematics. Performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques.
- D. Listening. Receives, attends to, interprets, and responds to verbal messages and other cues.
- E. Speaking, Organizes ideas and communication orally.

Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons.

- A. Creative thinking. Generates new ideas.
- B. Decision making. Specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative.
- C. Problem solving. Recognizes problems and devises and implements plan
- D. Seeing things in the mind's eye. Organizes and processes symbols, pictures, graphs, objects, and other information.
- E. Knowing how to learn. Uses efficient learning techniques to acquire and apply new knowledge and skills.
- F. Reasoning. Discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem.

Personal Qualities: Displays responsibility, self-esteem, sociability, self-management, integrity and honesty.

- A. Responsibility. Exerts a high level of effort and perseveres toward goal attainment.
- B. Self-Esteem. Believes in own self-worth and maintains a positive view of self.
- C. Sociability. Demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings.
- D. Self-Management. Assesses self accurately, sets personal goals, monitors programs, and exhibits self-control.
- E. Integrity/Honesty. Chooses ethical courses of action.

For Your Information Indicators of Success: What We See Students Doing

Habits of Mind

In Habits of Mind: A Developmental Series (Association for Supervision and Curriculum Development, 2000), Arthur Costa and Bena Kallick name 16 key behaviors that underlie thoughtful, intelligent action.

Persisting.

Managing impulsivity.

Listening with understanding and empathy.

Thinking flexibly.

Thinking about thinking (metacognition).
Striving for accuracy.

Questioning and posing problems.

Applying past knowledge to new situations.

Thinking and communicating with clarity and precision.

Gathering data through all senses.

Creating, imaging, innovating.

Responding with wonderment and awe.

Taking responsible risks. Finding humor.

Thinking interdependently.

Remaining open to continuous learning.

- Stick to it. See a task through to completion, and remain focused.
- Take your time. Think before you act. Remain calm, thoughtful, and deliberate.
- Seek to understand others. Devote mental energy to another person's thoughts and ideas. Hold your own thoughts in abeyance so you can better perceive another person's point of view and emotions.
- Look at a situation another way. Find a way to change perspectives, generate alternatives, and consider options.
- Know your knowing. Be aware of your own thoughts, strategies, feelings, and actions—and how they affect others.
- Check it again. Nurture a desire for exactness, fidelity, and craftsmanship.
- How do you know? Develop a questioning attitude, consider what data are needed, and choose strategies to produce those data. Find problems to solve.
- Use what you learn. Access prior knowledge, transferring that knowledge beyond the situation in which it was learned.
- Be clear. Strive for accurate communication in both written and oral form. Avoid overgeneralization, distortions, and deletions.
- Use your natural pathways. Gather data through all the sensory paths: gustatory, olfactory, tactile, kinesthetic, auditory, and visual.
- Try a different way. Generate novel ideas, and seek fluency and originality.
- Let yourself be intrigued by the world's phenomena and beauty. Find what is awesome and mysterious in the world.
- Venture out. Live on the edge of your competence.
- Laugh a little. Look for the whimsical, incongruous, and unexpected in life. Laugh at yourself when you can.
- Work together. Truly work with and learn from others in reciprocal situations.
- Learn from experience. Be proud—and humble enough—to admit you don't know. Resist.

- Gather in small groups of no more than six people. (Note: each group will need chart-pack paper and markers.)
- In your small group, select a high-performance behavior¹ that you would like to reinforce in your classroom. Using the chart-pack paper and markers, your task is to address the following questions: (Take about 30 minutes.)
 - What does this skill/behavior look like?
 Create a visual representation of what it looks like in the classroom.
 - How do you currently try to teach it? Identify strategies/activities you use.
 - C How do you know when students have developed it? What's the evidence? What would you see them doing in the classroom? Identify ways to assess attainment of the behavior/skill.
- Return to the large group and present your work.
- In the large group, discuss strategies for explicitly teaching such skills and strategies for assessing students' use of these skills/behaviors in the classroom.

'You may use the SCANS skills, habits of mind, your district's/state's high-performance behaviors or cross-cutting competencies, or any other list of like behaviors/competencies.

Tool 2.10 Assessing Habits of Mind in a Project or Internship

At Boston's Fenway High School students learn early to assess how their work demonstrates Perspective, Evidence, Relevance, Connection, and Supposition, the four habits of mind emphasized by the Coalition of Essential Schools. In their culminating exhibitions of Senior Projects and work internships, seniors defend their work before an audience that assesses it for those habits using this simple and thoughtful rubric:

Perspective	Evidence	Relevance	Connection	Supposition
Considers or addresses multiple perspectives	 Organizes work in an understandable, compelling manner 	Shows importance of key concepts in information to other larger or more	 Links concepts and issues with those from other disciplines or 	 Speculates or imagines other issues relevant to this topic
 Demonstrates under- standing of subtleties and differences among perspectives 	 Shows clear understanding of issues and concepts 	specific topicsDemonstrates personal understand-	subject matter Shows applicability to other research	Responds to "What if?" questions and changes of circumstance
<u> </u>	Demonstrates ability to research key issues	ing and meaning	topics, disciplines, careers	
Other	Other	Other	■ Other	■ Other
				-
Surpasses	Surpasses	Surpasses	Surpasses	Surpasses
☐ Meets	□ Meets	Meets	Meets	Meets
□ Needs More	☐ Needs More	□ Needs More	■ Needs More	□ Needs More

- Surpasses: Distinguished responses. Demonstrates exceptional critical thinking and understanding, answers all questions completely, poses new questions, demonstrates skills and concepts in an exceptional manner.
- Meets: Competent responses. Convincing, demonstrates skills and understanding in almost all regards, makes appropriate connections, answers questions completely, clearly, and effectively.
- □ Needs More: Inadequate responses. Needs improvement in several areas, unclear or incomplete, insufficient demonstration of skills or understanding. Re-do.

A good project involves serious research.

A framing question grounds the research, provides an entry point for students, and can bridge different disciplines.

Criteria for Framing Questions:

- It is interesting and personally meaningful to students.
- It is similar to questions being asked in actual worksites or community settings.
- It leads students into an investigation that ultimately meets academic and real-world standards.

Ways to Generate Framing Questions:

- In advance with help from other teachers and/or community partners.
- In class collaboratively with students so that they feel more ownership of the project. You may want to provide students with the standards you want the project to address prior to a group brainstorm of essential questions.

Activity for Constructing Framing Questions:

This activity is designed to use with teachers or students. Break into small groups of three or four.

Then (each group):

- Pick a worksite of choice.
- Generate questions that people who work at your chosen site think about, try to solve, or must deal with as part of their day-to-day business life.
- As you brainstorm, record questions on chart-pack paper.
- Group your questions according to their level of complexity and the knowledge or skills required to answer them.
- When you have finished, post your chart up in the room.
- Visit and review the charts of other groups, adding at least one new question to list. (Note: A facilitator should have the groups rotate to a new chart every 5-7 minutes)

Discuss as a whole group which questions meet the three criteria listed above and how questions could be modified to meet these criteria.

This tool is designed to help teachers provide the scaffolding students often need to complete projects successfully. By answering the diagnostic questions listed for each scaffold, teachers can assess whether they have given students the supports for learning they require.

Scaffold

Set explicit expectations and criteria

Ensure students have opportunities to acquire resources, content knowledge, and skills needed for project

Conduct ongoing assessment and provide continuous feedback on the project

Diagnostic Questions

- Are the project guidelines clear?
- Do students know how and when their work will be assessed?
- Will/did you involve students in setting the assessment criteria?
- Do students know and have the academic and technical knowledge needed to complete the project?
- Can students see examples of work that peers have done on similar projects?
- Do students have mentors or "coaches" to support the project's work?
- Do students have access to, and do they know how to use, the technology necessary to complete the project?
- Do checkpoints mark the end of each phase of the project?
- Are students expected to meet milestones while working on their projects?
- Do students engage in periodic, structured self-assessment?
- Do they receive timely feedback on their works-in-progress from teachers, mentors, and peers?

Anatomy and Physiology Health Education Project

Scaffolds

Diagnostic Questions

Self Assessment

Set explicit expectations and criteria

- Are the project guidelines clear?
- Do students know how and when their work will be assessed?
- Will/did you involve students in setting the assessment criteria?
- Project requirements are clear and include:
- Proposal with clear description of health problem team will investigate;
- List of sources consulted by students;
- Research notebook;
- First draft of newsletter on selected health issue;
- Summary of each team member's role in newsletter writing/production;
- Finished newsletter;
- Presentation to class; and
- Presentation to a real audience seeking information on the health issue.
- Criteria for each component of the project are clear (e.g., newsletter, presentation).

Ensure students have opportunities to acquire resources, content knowledge, and skills needed for project

- Do students know and have the academic and technical knowledge needed to complete the project?
- Can students see examples of work that peers have done on similar projects?
- Do students have mentors or "coaches" to support the project's work?
- Do students have access to, and do they know how to use, the technology necessary to complete the project?
- Students see examples of proposals from previous vegrs' tegms.
- Students see examples of health education newsletters developed by previous teams and professional newsletters.
- Teacher helps each student/team find an industry coach(es) with expertise in the specified problem area.
- Teacher connects students to health education experts who help them plan their presentations.
- Students receive training on use of internet and traditional library resources.
- Students receive help in school computer lab in layout/design of newsletter.

Conduct ongoing assessment and provide continuous feedback on the project

- Do checkpoints mark the end of each phase and provide continuous feedback of the project?
- Are students expected to meet milestones while working on their projects?
- Do students engage in periodic, structured self-assessment?
- Do they receive timely feedback on their works-inprogress from teachers, mentors, and peers?
- Project requirements lay-out clear checkpoints and milestones.
- Clear criteria established for each phase of the project.
- Teacher and coach review research sources and notebooks and suggest additional tasks.
- Teacher provides detailed feedback on first draft of newsletter.
- Students keep a journal in which they reflect on their learning.
- Students learn about real standards for health newsletters and health education presentations through working with industry coaches.



In designing a project, it is important to think about all the instructional strategies you will employ. The questions below are designed to prompt your thinking.

- What are individuals responsible FOR?
- What are groups responsible FOR?
- 3 What strategies will you use to manage groups of students doing various tasks?
- 4 When will you use direct instruction?
- When will you use an inquiry approach?
- When will you use experiential learning?
- 7 What other instructional methods will you use?

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Tool 2.14 Project-Based Learning Template

B. Duration & Credits

- What is the <u>duration</u> of the project from start to finish?
- What are your <u>out-of-class expectations</u> of students (hours per week)?
- In which subject(s) will students receive <u>credits</u> for this project?

C. Learner Outcomes

What content standards will you address through this project?

What <u>high-performance behaviors</u> or <u>SCANS-type skills</u> will this project address?

What <u>habits of mind</u> or <u>intelligent behaviors</u> will this project help students to develop?



D. Six A's (complete matrix, Tool 2.6)

E. Assessment and Evaluation

Will you use rubrics to assess student learning?

Teacher-designed and/or student constructed? (Please attach all rubrics.)

What other assessment tools will you use?
(e.g., tests, quizzes, journals, standardized tests, interviews, presentations, drafts, models, etc.)

What mechanisms will you use to provide students with ongoing feedback on their work?

F. Project Implementation (complete Tools 2.12 and 2.13—project implementation and scaffolding tools)

G. Resources

What resources do you require for your project? (Consider budget, personnel, equipment, access to technology, access to business and community experts, materials)

Tool 2.14/Example Excerpt Project-Based Learning Template

School: Skyline High School, Oakland, CA	_ Date: Spring 2000
Academy: Architecture & Graphic Technology (AGT)	
Teacher(s): Carol Squicci	
Subject(s)/Grade(s) 11th Grade: Graphic Design and US His	tory

A. Overview of Project

1. How would you describe your project in a paragraph or two?

This integrated project is designed for 11th grade US History students enrolled in the AGT graphic design course. The project requires students to design an informational brochure and new logo for a new wing of the Smithsonian Museum. This fictional wing's aim is to recognize US Innovative Spirits and their contributions to our growth as a nation.

The logo is a symbolic representation of the biographical character's image or work. The goal of the logo is to unify the new wing's concept in one simple, but bold statement. The brochure must capture the essence of how the US benefited from the contributions of the student's chosen historical figure in a very concise format. Students must research biographical data on their influential figure and use selected information in their brochure. The biography must be of someone no longer living. The brochures are presented to the school, library, and city museum for display and recognition.

- 2. What is/are the framing question(s) organizing your project? (see Tool 9)
 - 1. How is a conceptual design developed?
 - 2. How does researching biographical data provide the resources needed for a historical museum brochure?
 - 3. How does the study of a historical figure enrich one's understanding of another's influence during 20th century US history?
- 3. What are the products students are responsible to deliver?

Written: An informative brochure containing a brief biography of the subject's life, including relevant highlights, e.g., year born, country of origin, education. A description of the subject's field, his/her vision of that field, and most important, the subject's influence during US 20th century history. The brochure must be $8\frac{1}{2}$ x 11, horizontal, three panel, double fold, with a mailing panel.

cont.

Visual: A logo design to represent the biographical figure's image or work. The design must be a black and white image that can be reduced 60% and still maintain its character and detail. The appropriate typeface must be selected for the logo signature.

Presentation: The brochures are presented to the school, library, and city museum for display and recognition.

C. Learner Outcomes

1. What content standards will you address through this project?

Students will:

- * Understand that the present is connected to the past
- * Identify both similarity (continuity) and difference (change) between past and present
- * Understand the function and application of desktop publishing software
- * Droduce lay-outs for various printed products
- * Apply learned design components
- 2 What high-performance behaviors or SCANS-type skills will this project address?
 - * Resources: Identifies, organizes, plans and allocates resources
 - * Information: Acquires and uses information
 - * Technology: Works with a variety of technologies
- 3. What intelligent behaviors will this project help students to develop?
 - * Precision of language and thought
 - * Dersistence: Dersevering when the solution to a problem is not readily apparent
 - * Checking for accuracy and precision

E. Assessment and Evaluation

1. Will you use rubrics to assess student learning? Teacher designed and/or student constructed? (Please attach all rubrics)

Mastery

Final product based on components of teacher designed rubric: completeness, technical, aesthetics Exhibition/Demonstrations (performance-based)

Reflection and growth as a learner: self-evaluation; assessment form provided

- 2. What other assessment tools will you use? (e.g., tests, quizzes, journals, standardized tests, interviews, presentations, drafts, models, etc.)
 - * Worksheets and logs
- 3. What mechanisms will you use to provide students with ongoing feedback on their work?
 - * Student logs and teacher observation



Personalized Learning: Creating Small Learning Communities

The anonymity and alienation students can feel in large, impersonal high schools is one of the central issues that education reformers are trying to address. The size of the learning community appears to be particularly important for students who are traditionally least successful in school. Smaller, more personal schooling environments make it possible for teachers and counselors to know students well enough to build on their particular strengths and interests. Such learning communities also encourage conversation and collaboration among teachers as they work together to achieve more student-centered, active learning in the classroom.

One of the main strategies for creating such learning environments is to reorganize large high schools into smaller learning communities or clusters with a thematic focus. In this type of school structure, students move with a small cohort of peers and a single group of teachers through a focused course of study. One increasingly popular approach is to organize such small learning communities around real-world themes, such as health care and medicine or communication and the media. Large schools are finding that career clusters not only make their programs more personal and coherent; the smaller, more flexible groupings also make it easier to collaborate with community and work partners.

This chapter provides two sets of tools. The first section is designed to help a group of teachers create a productive small learning community for students. It contains tools teams can use to assess where they are and what they need to do and to capture vital information for this ongoing team and school planning. The second section focuses on nurturing a high level of collaboration and reflective practice among the teachers as they adjust to working in a smaller community of peers.

CHAPTER 3

Personalized Learning: Creating Small Learning Communities

SECTION A

Focusing on Students and Student Work Tool 3.1:

Benchmarks for Small

Learning Communities

Tool 3.2

What's Negotiable?

Tool 3.3

Mapping Your Small Learning Community Design

SECTION B

Creating a Collaborative Professional Culture

Tool 3.4:

Developing and Sustaining a Collaborative Professional Culture

Tool 3.5:

What Administrators Can Do

Tool 3.6:

Conditions for Effective Teaming

Authors:

Cheryl Almeida Esther Bobowick Michelle Swanson For students to benefit from a small learning community, it needs to be more than an organizational or administrative unit. A primary task is therefore to create a clear instructional and curricular focus and to foster a shared understanding of, and commitment to, agreed-upon performance expectations. In creating such a community, practitioners face a wide range of challenges, from resolving scheduling conflicts to creating rituals that build the identity of the small learning community (SLC).

NOTES ON THE TOOLS

Tool 3.1: Benchmarks for Small Learning Communities

This diagnostic tool helps teams of teachers in SLCs to divide and sequence the task of developing effective SLCs into smaller and more manageable steps. It is designed to be equally useful for teams at early or more advanced stages of development and can be used by a team as a regular part of its ongoing planning-doing-assessing cycle.

Tool 3.2: What's Negotiable?

This tool focuses the team on learner outcomes and priority instructional goals, one of the key practices listed in tool 3.1.

Tool 3.3: Mapping Your Small Learning Community Design An SLC can use this to think through how their design decisions will affect what students learn or experience in the SLC. An example of how one school's SLC has mapped its design follows the tool.





Tool 3.1

Benchmarks for Small Learning Communities

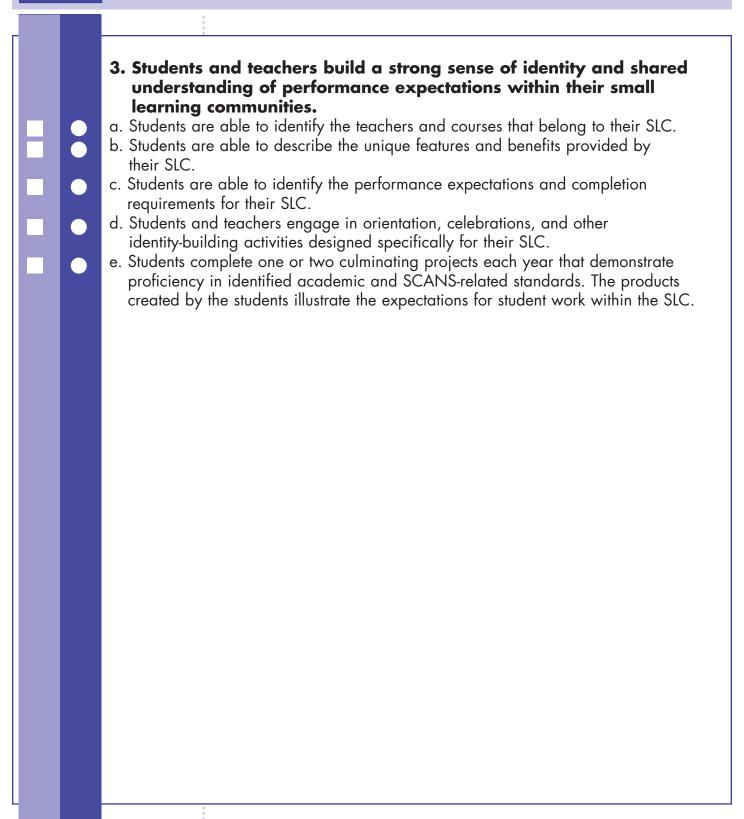
Go through all or selected benchmarks and rate your small learning community's progress at achieving each one, according to the four-point scale provided. Place the number of your rating in the circle beside each benchmark. Then indicate which of these benchmarks are high priorities to accomplish in the upcoming year by placing an x in the appropriate box. Remember, you want to identify a reasonable number of priority benchmarks given the time, people, and material resources available.

3 Early Implementation 4 Operational SCALE: 1 Not Yet Considered 2 Planning

- 1. Students and teachers are clustered into small learning communities in which teams of teachers have primary responsibility for a common group of students.
- a. Small learning community includes several core academic as well as career theme-related courses.
- b. Students enrolled in the SLC spend at least 50 percent of their time in courses designated as part of the SLC.
- c. Teachers who belong to the SLC spend at least half their time teaching courses identified as part of their SLC.
- 2. The small learning community design has a clear instructional and curricular focus and clearly defined criteria for successful completion.
- a. Teachers can articulate how their SLC provides a unique and different learning experience and what the specific benefits are for students who belong to it.
- b. The SLC consists of a coherent and logical sequence of courses that build on each other and increasingly challenge students.
- c. Teachers of academic and career or theme-related classes have identified how they use themes and interdisciplinary projects and assignments to bring coherence to the curriculum.
- d. Teachers have discussed and agreed upon the role of work-based and community-based learning experiences in the curriculum.
- e. Teachers, in consultation with community partners, have determined the requirements for successful completion of the SLC.
- f. Teachers, with community partners, have designed and implemented a process for assessing and certifying student attainment of SLC requirements.



Tool 3.1 Benchmarks for Small Learning Communities



	Important	Nice
Lear	ner Outcomes: High-Performance	Skills
lon-negotiables	Important	Nice

STEPS

- 1. (Each team member) Complete the charts above for your content area(s) and for the high-performance skills (i.e., SCANs-type competencies) that you are trying to help students develop. (See pg. 42 for SCANS skills.)
- 2. Using chart-pack paper, share and record the results among your team for the content areas and high-performance skills. (Depending on the size of your team you may want to start by looking at learner outcomes across content areas or begin with same subject teachers and then move across content.)
- 3. Note similarities and discrepancies and cluster learner outcomes whenever possible.
- 4. Once all the learner outcomes are recorded on chart pack-paper, prioritize the most important and begin to discard those that are less essential.
 - a. One way to do this is for everyone to individually rate the learner outcomes in the non-negotiable column from most important to least. Then report out and note where the group has consensus.
 - b. Another option is for everyone individually to identify their top three learner outcomes in the non-negotiable and important categories. Again report out and look for consensus.
- 5. Continue a process of prioritizing your learner outcomes until you have a list that everyone agrees is reasonable to achieve in one school year.
- 6. Return to this process for each school year to refine and revise your learner outcomes.



Tool 3.3 Mapping Your Small Learning Community Design

Key Design Decisions Pury
What's Essential to Our Approach Why

Purpose/Goal of Design Why We Made Design Choice

The goal of this activity is to create a design map for your SLC on chart-pack paper.

The framework for the map is below.

Outcome
What We Want to See Kids Doing

STEPS

- projects, number of courses, partnerships, work and community-based learning.) that you have made 1. As a team, brainstorm all the design decisions (e.g., instructional focus and approach, use of or are considering for your small learning community.
- Record the results of this brainstorm on chart-pack paper and prioritize the decisions most essential to your design. One way to do this is for everyone individually to rate the design decisions from most essential to least. Then report out and note where the group has consensus. 2.
- 3. Move to column two of your "map" and as a team identify the purpose or reasoning behind each of If you have a large team you may want to break into smaller groups for this activity, assigning each group a number of your priority design decisions. Think of this as the "Why we think this is important" column. (Note: design decisions, then reconvene and share your results.)
- 4. Finally, move to the "Outcome" column of your map and as a team (or in smaller groups) identify what community design. Since what students will learn derives from their combined experience of all you hope to see students knowing, doing, and experiencing as a result of your small learning elements of your small learning community design, you do not have to identify outcomes per design decision.

Fresno, CA. Cluster includes career-related courses: Forensic Research & Biotechnology, Biomedicine, The Professional Science Cluster of The Center for Advanced Research and Technology (CART) in Environmental Engineering & Field Research

Purpose/Goal of Design Why We Made Design Choice What's Essential to Our Approach **Key Design Decisions**

Students Knowing and Doing What We Want to See Outcome

Partners as mentors - - -

learning and provide real Mentors personalize

world standards

 Projects are authentic and increase students' interest and motivation

Case-based/problem-based

and real-world partner

generated projects

Focus on cross-cutting

competencies: Researching Interviewing

Working in teams

Problem-solving

Public speaking

 Teaching of content and skills embedded in realworld problems or situations Students learn to think and act as the members of various professions

- solving strategies to solve the problems and issues they are Use a repertoire of problemstudying
- Are articulate about the purpose behind the approach they are
 - taking Are able to use, analyze, and apply information and results gathered for their projects
- Consult, teach, and/or produce something of value for their applying content and skills Meet high standards in partners
- real-world problems and issues motivated because what they are investigating stems from Are more engaged and
- Are more precise in the vocaburelation to various professions lary and concepts they use in See the scope of possible
- Talk about what they have done with and learned from their professional careers

- Competency-based
- Pre-analysis of skills technology skills:
 - Targeted instruction

represented by each course

central to the profession(s) Use of tools and methods

In a large high school, teachers as well as students often experience feelings of isolation. A small learning community creates a new set of opportunities for teachers to participate in decisions about the educational environment, to engage in reflective conversations about practice, and to engage in collaborative curricular planning and design. The tools in this section are designed to help practitioners take advantage of such opportunities.

NOTES ON TOOLS

Tool 3.4: Developing and Sustaining a Collaborative Professional Culture This diagnostic tool helps members of a small learning community assess what they need to do to take advantage of the new set of opportunities afforded by this structure.

Tool 3.5: What Administrators Can Do

This checklist suggests a variety of ways that school administrators can support teachers in their efforts to form effective planning teams. School teams can help administrators decide which supports are most important by prioritizing the list.

Tool 3.6: Conditions for Effective Teaming

One of the first moves that many SLCs make is to designate common planning time. Yet having the time in the schedule does not necessarily guarantee that the time will be used productively. This tool is designed to help teachers assess their use of common planning time and identify areas for improvement.





Tool 3.4 Developing and Sustaining a Collaborative Professional Culture

Go through all or selected benchmarks and rate your small learning community's progress at achieving each one, according to the four-point scale provided. Place the number of your rating in the circle beside each benchmark. Then indicate which of these benchmarks are high priorities to accomplish in the upcoming year by placing an x in the appropriate box. Remember, you want to identify a reasonable number of priority benchmarks given the time, people, and material resources available.

SCALE: 1 Not Yet Considered 2 Planning **3 Early Implementation 4 Operational** 1. Collaborative decision making is an integral part of the small learning community's procedures. a. Small learning community team has designed a process for collaborative decisionmaking that ensures that all team members have a voice in major program and budget decisions. b. The SLC team regularly assesses how the collaborative process is working and makes changes as necessary. 2. Professional development is designed to address the instructional goals and priorities identified by the small learning community team. a. The SLC team has identified its student achievement goals and instructional priorities. b. Teachers have developed a professional development plan that enables them to engage in sustained work on their instructional priorities. c. Clear instructional outcomes and products result from professional development activities. d. The professional development plan is regularly assessed and, based on the results, revised for the following year. 3. Common planning time is used to focus on instruction. a. Groups meeting for common planning time are characterized by: established group norms, clear roles and responsibilities, disciplined time schedules and agenda, and consistent record keeping and sharing of information. b. Common planning time is used effectively to: address student needs, plan and design curriculum, and improve instruction by, for example, collaboratively assessing student work.

Rank Order Supports in Place

Teacher teams can help administrators decide which supports listed below are most important by identifying their top two priorities in each category. Begin by identifying, as a team, the supportive activities you agree are already taking place; place a check mark in the circle next to that activity.

Next, under each category of supports, individually rank the remaining activities from most to least important by placing numbers in the boxes next to each (1 = most important).

Share your rankings among the team, noting discrepancies and similarities. Through discussions, reach consensus on your team's top two priorities for each category of support. Share these results with your administrator(s).

1. To support teachers in moving from isolation to collaboration:

- a. Build reflection on teaching and learning into faculty meetings.
- b. Offer critical friends workshops and support collaborative assessment groups.
- c. Buy a book for all staff to read concerning an aspect of teaching or learning and discuss it at a faculty meeting.
- d. Provide time and support for teachers to visit each others' classrooms and share what they observe and learn.
- e. Host an after-school sharing session with teachers from a "feeder school" or a receiving school/college to compare understandings about what students should know and be able to do.

2. To give public and private recognition to teachers' efforts at more reflective and collaborative practice:

- a. Create public spaces (e.g., bulletin boards in the library or faculty room) to share samples of student work and photographs of students "caught" in the act of learning.
- b. Establish clear expectations of what teachers will accomplish through reflective practices and expect periodic showcasing of the work.
- c. Honor common planning time and do not pull teachers out for other duties.
- d. Observe/participate in common planning time to support, not evaluate.

3. To sustain the process of reflective practice in the school:

- a. Act as a translator of and a buffer from district policies (not a transmitter/enforcer).
- b. Respond to resource needs (e.g., bring in process coaches or facilitators as needed).
- c. Identify visits to work-sites or internship opportunities for teachers to see how and where the skills and content they teach is used. (see pg 81, Ch. 4)

Directions for Using the Tool:

Each team member completes the tool individually:

- 1. Rate each **OBJECTIVE** listed in Column 1 of the table on the next page, according to the following scale: 1 = strongly agree, 2 = agree, 3 = disagree and 4 = strongly disagree
- 2. In column 2, record what you see as the CHALLENGES to achieving the objective.
- 3. In column 3, write down any ideas you have about what has or could work to overcome the challenges listed in column 2 and to accomplish the objective listed in column 1.

Reconvene as a team:

- 1. Share your responses. One way to do this is to record responses on chart-pack paper.
- 2. Spend some time discussing discrepancies in the ratings of the objectives and differences and commonalities among challenges and solutions noted.
- 3. Focus on suggestions and ideas for addressing challenges (Table 1, Column 2). As a team identify a few action steps to improve team effectiveness for as many objectives as is appropriate.
- 4. Record these in Table 2.
- 5. Return to the tool periodically to assess change and improvements in team's use of common planning time.

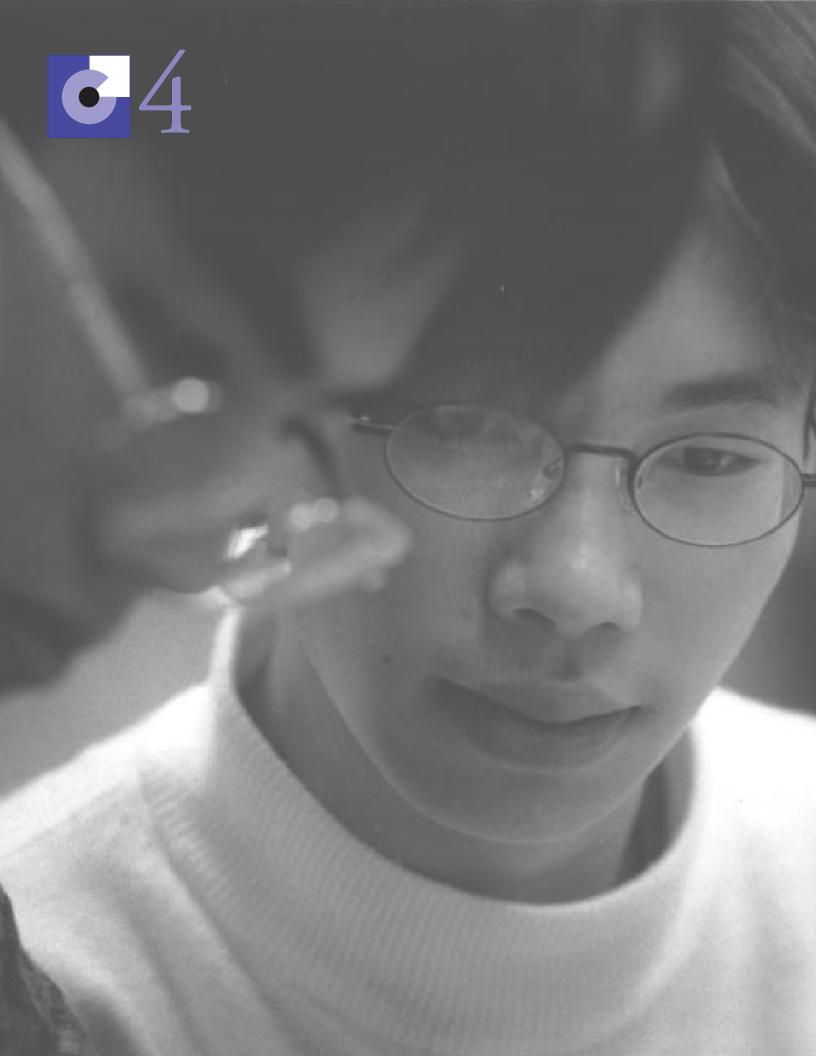
KEY ① = strongly agree ② = agree ③ = disagree ④ = strongly disagree

OBJECTIVES	WHAT ARE THE CHALLENGES?	WHAT HAS OR CAN WORK?
TRUST is BUILDING in the group. ① ② ③ ④		
GROUP NORMS are in place. ① ② ③ ④		
ROLES and RESPONSIBILITIES of group members are determined. ① ② ③ ④		
A TIME SCHEDULE is established and consistently followed. ① ② ③ ④		
AGENDAS are established for each meeting. ① ② ③ ④		

KEY 1 = strongly agree 2 = agree 3 = disagree 4 = strongly disagree

OBJECTIVES	WHAT ARE THE CHALLENGES?	WHAT HAS OR CAN WORK?
RECORD-KEEPING is done and circulated. ① ② ③ ④		
The focus of meetings is upon STUDENT NEEDS. ① ② ③ ④		
The focus of meetings is upon SUPPORTS/INTERVENTIONS. ① ② ③ ④		
The focus of meetings is upon CURRICULUM PLANNING. ① ② ③ ④		
The focus of meetings is upon INSTRUCTIONAL PRACTICE. ① ② ③ ④		
Group has success in KEEPING THE FOCUS ON STUDENT LEARNING and academic improvements. ① ② ③ ④		

OBJECTIVES	ACTION STEPS



The School Plus: Extending Learning Beyond the Classroom

To be successful in today's world young people need performance skills that build on, but go beyond, traditional academics. These high-performance competencies include the ability to identify and solve problems, analyze and use information effectively, communicate appropriately in a range of media, and work productively in teams with people of diverse backgrounds. A challenging issue for communities is how and where they can help young people to develop such skills.

These competencies can and should be reinforced in the classroom, but workplaces and other community settings can be very effective learning environments for young people—especially those who have traditionally underperformed in school. It cannot be assumed, however, that any job a teenager might hold offers opportunities to learn such higher order skills.

The quality of the work matters. Structured workplace experiences (paid and unpaid) in which students are mentored by adults and given structured opportunities to develop high-performance competencies result in long-term gains for students compared to peers who lack such experience. (See, for example, the Protech results summarized on page 88.)

Educators, employers, and intermediary organizations in a community can do a great deal to take advantage of potential learning experiences outside of the classroom. The first section of this chapter offers tools and examples that educators, employers, and worksite supervisors can use to enhance the rigor of work-based learning, help workplace supervisors understand what's involved in mentoring a student, and help the student grow and develop at the worksite. The second section focuses on teachers and what they can learn through spending time at workplaces.

CHAPTER 4

The School Plus: Extending Learning Beyond the Classroom

SECTION A

Enhancing the Rigor of Work-Based Learning

Tool 4.1:

Getting the Most from Job Shadowing

Tool 4.2

The Massachusetts Work-Based Learning Plan

Tool 4.3

Diagnosing Workplace Learning Opportunities

Tool 4.4:

Three Purposes of Workplace Mentoring

SECTION B

Connecting Classrooms and the World of Work

Tool 4.5:

Learning Audit of a Worksite

Tool 4.6:

Key Questions to Ask at a Worksite Visit

Tool 4.7:

Bringing the Learning Back to School

Authors: Cheryl Almeida Adria Steinberg

SECTION A Enhancing the Rigor of Work-Based Learning



My supervisor is always teaching me something—he's like an encyclopaedia—he knows eight different languages! He's always willing to explain something to me. Honestly, I think we should be paying them, because we're learning so much.

Work is like four more classes after school. I've learned so much!! I've taken what I learn at work and I have used it in class. I've done much better in biology as a result.

As the last ten years of school-to-career activity have shown, creating high-quality work-based learning experiences demands time, resources, and the commitment of employers, school staff, and others involved in the community-connected learning effort. The tools in this section are designed to support those engaged in this effort.

NOTES ON THE TOOLS

Tool 4.1: Getting the Most from Job Shadowing

This suggests ways to enhance the quality of even a one-day worksite visit by providing a structured experience with strong connections back to the classroom. Without such a connection, it can be difficult to justify the time and resources required.

Tool 4.2: Excerpts from the Massachusetts Work-Based Learning Plan Originally developed by the Boston Private Industry Council in collaboration with the Boston Public Schools School-to-Career Office, Jobs for the Future, and employers involved in the School-to-Career Partnership, the plan is designed to enhance the quality of work-based learning. It offers a framework of nine high-performance competencies for supervisors to use in creating a job description for a student, as well as in supporting and assessing each student's performance on the job.

Tool 4.3: Diagnosing Workplace Learning Opportunities

This tool offers employers a way to conduct a quick, "snapshot" assessment of the quality of their work-based learning placements. Like the Massachusetts Work-Based Learning Plan, this is organized around high-performance competencies. With this tool, supervisors can get a quick read on what type of learning opportunities their work-based placements offer students. Using the tool results as a guide, supervisors can identify places to increase the complexity of tasks for particular students.

Tool 4.4: Purposes of Workplace Mentoring

Developed by the Cranberry Partnership in Massachusetts, this tool delineates three major types of workplace mentoring. It provides a framework for a discussion among school-community partners about the need for mentoring on the job and the difference between mentoring and traditional job supervision.

Tool 4.1 Getting the Most from Job Shadowing

- Establish clear objectives for the job shadow. Is the goal to understand more about a particular occupation or career direction? Is it to become familiar with a particular kind of workplace? What are students expected to understand and share as a result of this experience?
- Ask students to engage in specific learning tasks while at the job shadow, for example:
 - Conduct an informational interview with one or two employees;
 - Observe and record competencies employees use on the job;
 - Record all of the ways technology is being used;
 - Gather and understand printed materials used by the company.
- Prepare students for learning activities; for example:
 - Work with them to design interview questions and practice interview and observation skills;
 - Spend time on the internet researching the occupations/careers of the people they will be shadowing.
- Expect students to produce a product from their job shadow experience, for example:
 - Written reflection on what they observed and learned;
 - Write-up of at least one interview;
 - A class pamphlet on careers;
 - Representation of how technology or other competency is used.
- Spend time debriefing the experience with students.

How to Use the Massachusetts Work-Based Learning Plan

Goal:

The goal of the Massachusetts Work-Based Learning Plan is to promote and measure growth in nine high-performance skill areas called competencies. The Plan is a tool to help the worksite supervisor, classroom teacher, and student set clear goals and expectations so that the placement is a productive experience for both student and employer.

Methods:

The Learning Plan realizes this goal through:

- An initial assessment of the student's competency level;
- Setting goals;
- Follow-up assessment to document learning and productivity gained on the job.

How to Rate Student Competency Levels:

The Learning Plan has nine competencies, which are divided into specific measurable skills. You may find that only a few of the competencies match the job a student is performing. Identify those competencies from the list of competency definitions. (see next page)

The Learning Plan has four rating levels in each competency area:

Needs Development Competent Proficient Advanced

- Each competency has a one-page worksheet. Each worksheet contains several sections, which break the competency into specific skills.
- Rate the student in each skill by checking the appropriate box in each section which most closely matches the student.
- Once you have rated the student in each section of the competency, estimate the overall average rating in the competency and indicate it by checking a rating on the corresponding summary sheet.
- Record any comments and goals for progress in the marked space.

Anyone interested in a complete copy of the Massachusetts Work-Based Learning Plan and accompanying Instruction Manual should contact the Massachusetts Department of Education, Office for School-to-Career Transition, 350 Main Street, Malden, MA 02148. Telephone: 781.388.3300 ext. 361. Fax: 781.388.3382.

Email: info-stw@doe.mass.edu

Massachusetts Work-Based Learnin	ıg Plan Su	mma	iry S	heet		Z
Student: ID#:	School:					
Supervisor:	Company:					
Student's Job Title:						
Career Specialist/Teacher:			O'S ORME	Metet Page	FICHENT ROT	ARMCED
Competencies		ME		MPt PRC	ELO POS	JAIL /
Communication and Literacy: The student demonstrates the ability to speak, listen, read, and write to function successfully at the work site.	1st Review 2nd Review					
Organizing and Analyzing Information: The student gathers, organizes, and evaluates the meaning of documents and information.	1st Review 2nd Review				. 🗆	
Problem Solving: The student identifies problems, understands their context and develops solutions.	1st Review 2nd Review					
. Using Technology: The student identifies and applies appropriate technologies.	1st Review 2nd Review					-
. Completing Entire Activities: The student participates fully in a task or project from initiation to completion, using appropriate time-management skills.	1st Review 2nd Review					
Acting Professionally: The student meets workplace standards on attendance, punctuality, dress-code, confidentiality, flexibility and self-control.	1st Review 2nd Review					
Interacting with Others: The student works professionally and respectfully with a diversity of co-workers, supervisors and customers, resolving conflicts in a constructive manner.	1st Review 2nd Review					
Understanding All Aspects of the Industry: The student understands the structure and dynamics of the entire organization, health and safety issues in the industry and the role of the business within the larger community.	1st Review 2nd Review					
. Taking Responsibility for Career and Life Choices: The student balances demands of work, school and personal life and takes responsibility for developing his or her own personal and professional growth.	1st Review 2nd Review					
Student Signature 1st Review 2nd Review Date Date	Supervisor Signatu	ıre		1st Review Date	2nd R Date	eview
Parent Signature 1st Review 2nd Review Date Date	Career Specialist/	Teacher Sig		1st Review Date	2nd R Date	leview



Tool 4.2/Sample Page

The Massachusetts Work-Based Learning Plan

Student:	ID#:	School:		
Supervisor:		Company:		
Student's Job Title:				
First Review Date:		Second Review Date:		
In each row, please check ONE p	phrase that best describes the studer	nt's performance.		
NEEDS DEVELOPMENT	COMPETENT	PROFICIENT	ADVANCED	
1a. Speaking			,	
Learning to speak clearly, audibly and courteously.	Speaks clearly and uses language appropriate to the environment both in person and on the telephone.	Expresses complex ideas in an organized and concise manner.	Presents effectively to a group using well-organized format, concise language and clear enunciation.	
Comments:				
1b. Listening				
Developing listening skills; working to make eye contact and confirm understanding.	Listens attentively; makes eye contact; repeats instructions to confirm understanding.	Listens attentively and demonstrates understanding through relevant responses and questions.	Retains complex information over time and applies it to later work.	
Comments:				
1c. Reading				
Reads written directions and workplace documents with assistance.	Reads written directions and workplace documents independently.	Reads and understands written materials, including technical documents, independently; asks questions where appropriate.	Reads complex written materials and executes related tasks independently.	
Comments:				
1d. Writing				
Learning to write clearly with correct grammar.	Writes clearly with correct grammar.	Writes clearly using work-related terminology.	Writes and develops professional material such as newsletters and marketing brochures.	
Comments:	<u> </u>			
Goals:				

Student: ID#:		School:		
Supervisor:		Company:		
Student's Job Title:				
First Review Date:		Second Review Date:		
In each row, please check ONE p	phrase that best describes the stude	nt's performance.		
NEEDS DEVELOPMENT	COMPETENT	PROFICIENT	ADVANCED	
2a. Collecting and	Organizing Information	on		
Developing ability to collect and organize information and material needed for a task.	Effectively compiles information and resources, including via the Internet.	Effectively organizes and evaluates the relevance and accuracy of information.	Identifies and obtains missing information based on mastery of subject.	
▲ Comments:				
2b. Research and A	nalysis			
			П	
Developing a familiarity with pertinent information and its location.	Researches and synthesizes information from a variety of sources.	Analyzes, interprets and draws conclusions from a variety of information types and sources.	Develops theories of action and tests them in practice.	
▲ Comments:				
2c. Quantitative An	alysis and Mathemati	ics		
		П		
Performs simple calculations— addition and subtraction— with and without a calculator.	Applies basic math, including multiplication and division, to complete appropriate tasks.	Demonstrates understanding of quantitative or geometric applications by calculating fractions, percentages, angles or other mathematical relationships.	Applies advanced math, such as statistics, accounting or probability to complete assignments and test hypotheses. Presents quantitative analyses through graphs and charts.	
▲ Comments:				
Goals:				

Steps for Implementing the Work-Based Learning Plan¹

☐ 1. Develop student job description.
2. Identify which competencies match job responsibilities.
☐ 3. Share job descriptions and competencies with student.
☐ 4. Observe student's performance on the job.
☐ 5. Assess ability level for the appropriate competencies.
6. Conduct an initial evaluation meeting with the student—share assessment results and set performance goals.
7. Follow-up with subsequent assessments and evaluation meetings—acknowledge growth and set new goals where applicable.
■ 8. Reinforce goals with student.
☐ 9. Conduct final assessment and meeting—share level of competency attained.

¹Adapted from the Massachusetts Work-Based Learning Plan Instruction Manual

Tool 4.3 Diagnosing Workplace Learning Opportunities

This tool is designed to help you get a better understanding of the level of complexity of the TASKS that a student performs at the worksite. For each of the competencies listed below, please circle the level, which best describes what the student is ASKED TO DO.

student is ASKED TO DO.		
1	MATH	2
Not used on the job	2 Perform simple arithmetic computations	3 Perform complex computations (e.g., calculate interest rates, convert to metric system)
	WRITING	
1 Not used on the job	2 Write simple messages	3 Perform more complex writing tasks (e.g., letters, sequential written directions)
	READING	
1 Not used on the job	Read simple directions (e.g., labels, memos, filing directives)	3 Read more complex materials (e.g., instructional manuals, reports)
	TASK COMPLEXITY	
1 Perform simple one-step tasks	2 Perform multi-step tasks	3 Perform more than one multi-step task simultaneously
PLA	NNING AND DECISION MA	AKING
1	2	3
Not a responsibility of the job	Assist in planning steps required to complete multi-step assignments	Helps identify alternative methods to complete multi-step assignments and plan steps
PROBLEM	A SOLVING AND TROUBLE-	SHOOTING 3
Identify problems when performing routine work assignments	Identify problems and possible solutions to routine work assignments	Perform complex, non-routine work assignments that require problem solving

COMPUTER TECHNOLOGY

No use of a computer on the job

Use a computer for simple word-processing and data-entry tasks

Use a computer as a tool for more complex assignments such as spreadsheets, graphs,

OTHER TECHNOLOGY

No use of other technology on the job

Perform basic technical tasks Perform advanced technical tasks such as helping maintain computer networks

CLIENT/CUSTOMER SERVICE

No interaction with clients/ customers on a regular basis Convey simple messages to clients

Handle client/customer questions and requests for services

ORAL COMMUNICATIONS

Job-related communications consist mainly of asking and answering questions

Prepare and convey simple ideas and information for co-workers and/or external clients

Prepare and convey complex ideas and information to co-workers and/or external clients

ORGANIZE AND ANALYZE INFORMATION

File and organize materials

Prioritize information in a systematic way

Read, analyze, and interpret complex information Workplace mentoring can be very helpful to young people struggling to make the transition to adulthood. The Cranberry Partnership, in Massachusetts, developed this tool to help mentors think about how to be most useful to students. The assumption is not that mentors will do everything listed here, but rather that each individual's approach to mentoring will be shaped by the mentor's personal interests and strengths as well as the student's.

Mentoring for career development involves helping the student learn about career options and reflect on his or her interests and strengths. Students at the high school level are just beginning to learn about the wide range of opportunities available in today's job market. Thus, the mentor can play a valuable role in broadening a student's career awareness. Career development activities include:

- Talking about career options;
- Helping the student to understand the educational requirements for careers in your industry, including high school courses and post-high school education;
- Helping the student to meet people in a variety of jobs;
- Providing ways for the mentee to learn about different aspects of your industry; and
- Trying out some formal career exploration activities together.

Mentoring for skill development involves helping the student explore and develop skills, including both the skills needed in this initial work experience and the broad skills needed for success in future careers.

Skill development activities include:

- Coaching the student as he or she learns the job;
- Modeling and talking about important workplace skills;
- Providing opportunities for the mentee to try out challenging activities; and
- Designing special projects to increase learning.

Mentoring for personal development involves helping the student to set goals and to have the confidence to pursue these goals. Young adults may have many unspoken questions about the future: wondering whether they have the potential for a successful career, how much time and effort they want to invest in their careers, and even how and when they will know what they want to do for a living. They will benefit from talking about these issues and from finding out how adults approached these very same questions.

Personal development activities include:

- Talking about long-range plans and expectations;
- Working together on formal goal setting activities; and
- Modeling and talking about ways of managing a career.

Preparing for Teacher Visits

- Provide reading material on your company
- Schedule activities to cover all aspects of your work
- Demonstrate key technologies or work processes
- Schedule visits to a variety of departments
- Plan job shadows
- Provide opportunities for discussions with employees

Too-often, teachers are closed off behind their classroom doors, isolated from the workplace and the broader community. Visiting worksites can lead teachers to discover new connections between what they teach and the world of work. These visits can range from a one-time trip to a more structured "externship" where teachers spend several weeks working and learning at the worksite.

The following tools are designed to guide and enhance teachers' worksite learning experiences by helping teachers use their experience to: create curricula that links the disciplinary content and methods to the world of work; and develop activities, investigations, or projects that enhance students' learning in the worksite.

NOTES ON THE TOOLS

Tool 4.5: Learning Audit of a Worksite

This set of questions is designed to help teachers organize their observations and interviews during a worksite visit.

Tool 4.6: Key Questions to Ask at a Worksite

This tool offers additional questions teachers can use to interview employees during a worksite visit.

Tool 4.7: Bringing the Learning Back to School

After a worksite experience, it is important for teachers to engage in some reflection and to think about how to bring what they learned into the classroom. This is a guide to such reflection.

The tool can be used in full or in part, depending on the amount of time teachers have at the worksite. Teachers and other staff can work individually or in a team. It can also be used as a learning tool with students. If time at a worksite is limited, participants can complete Part C later.

A. Skills and Knowledge at Work

Using a combination of observation and interviews, try to record examples of at least one of the first three and at least two from the last six:

- Technical skills people are using:
-) Interpersonal skills people are using:
- Additional skills or personal qualities the job(s) seem to require:
- Applications of mathematical reasoning/approaches in this workplace:
- How/where writing and other communication skills are in use:

- What types of materials people read as part of their work:
- 7 Applications of scientific concepts or methods:
- How art and creative expression fit into this workplace:

B. Problems and Projects at Work

Through interviews, observations, and your imagination, come up with an example of at least a routine problem staff might deal with in this organization and, if time allows, a complex one:

- A routine problem or issue people deal with in this organization:
- A more complex challenge or problem that required investigation and the contribution of several people:

C. Opportunities and Resources at Work

Individually or in small groups come up with ideas for the following questions. Be open-minded and creative.

- What activities might the student be involved in at the work site(s) that would enhance his/her applied learning and academic skills?
- What essential questions could a student investigate through work experience at the site(s) you visited? Consider how the question:
 - (a) relates to the discipline(s) you teach;
 - (b) is grounded in actual problems or processes at the workplace; and
 - (c) might capture the interest of a student.
- What curricula ideas emerged from your visit?

6

Tool 4.6

Key Questions to Ask at a Worksite Visit

A worksite visit usually includes interviews with one or more key employees. Depending on the amount of time teachers have to spend at the worksite and the number of interviews arranged, they can ask all the interview questions or select a few that they are interested in. Teachers should keep notes in order to share information with their colleagues and to help them generate curriculum.

- What is the primary purpose of the company/agency?
- How long have you been with the company/agency?
- What are your main responsibilities?
- How has technology affected your role?
- How might this job change in the next five years?



Tool 4.6 Key Questions to Ask at a Worksite Visit

- What are some of the problems (related to the type of business or agency) people here are researching or trying to solve?
- What are some of the core abilities and skills you look for in new hires for entry-level positions?
- What should I be teaching in my classroom to prepare students for employment in a company/agency like this?
- What ideas or materials do you currently have that a teacher could use in the classroom?
- What would you recommend teachers do to strengthen the relevance of school work to real work?

Tool 4.7 Bringing the Learning Back to School

This tool is useful as a way to share learnings when teachers participate in worksite visits as part of a workshop or course.

- As a follow up to your visit, complete the following phrases (writing each on a separate post-it note):
 - The most surprising discovery I made during the site visit was...
 - The two most interesting things I learned were...
 - •I would have gotten more out of the site visit if...
 - Because of the site visit, I learned that I needed to spend time teaching...
 - Three ideas for curriculum I got are...
 - One plan I have for integrating what I learned in the classroom is... (Before or while this is going on, one person writes each of the six phrases above on a single sheet of chart-pack paper and hangs them up around the room.)
- Place each of your post-it notes on the appropriate chart-pack paper.
- Conduct a "gallery walk" to read the reflections of your colleagues.
- Discuss what you discovered from the worksite visit generally and gallery walk specifically.



Safe Passage to Adulthood: Structuring the Transition

Young people in the United States come of age in a society that lacks a well-developed set of policies and institutional connections to help them make the transition to adulthood. One of the goals of community-connected learning is to better prepare students for life after high school, structuring ladders of opportunity for students who, increasingly, combine postsecondary education and employment. This chapter presents tools that schools, businesses, and community organizations can use to put this principle into practice.

The first section of this chapter focuses on how communities can make commitments to help young people achieve certain positive outcomes and how they can keep track of their students after they graduate. The section offers an example from two pages of the Boston Compact IV, a community-wide agreement on goals, student outcome measures, and commitments to improve student outcomes among school, community, business, and higher education partners.

The second section looks at competency-based graduation requirements and admissions criteria designed to create a more seamless educational progression for young people and to improve the "signaling" about the range of competencies and levels of performance students need for success in postsecondary educational and work environments. This section offers examples of transcripts and assessments that schools and school districts, working with universities and colleges, are developing.

CHAPTER 5

Safe Passage to Adulthood: Structuring the Transition

SECTION A

Committing to Student Outcomes

Tool 5.1:

Boston Compact IV

Tool 5.2:

Key Steps for Surveying Graduates

Tool 5.3

Sample Survey of Graduates

SECTION B

Competency-Based

Assessment and Admissions

Tool 5.4:

Tools and Methodologies for Assessing High-Performance Skills

Tool 5.5:

Discussion Guide: Competency-Based Transcripts

Authors: Adria Steinberg Lili Allen



Findings from Post-Graduate Survey

Students who participated in ProTech, Boston's longest-standing school-to-career program, had better post-high school outcomes than a matched group of peers, according to a study of 1993-95 graduates.¹

This was especially true of African-American students. Specifically, Protech students were more likely to:

- Attend college
- Remain in college and earn a college degree or other certificate of postsecondary training
- Be employed
- Earn a higher hourly wage

¹ ProTech, a collaboration of the Boston School-to-Career Office, the Private Industry Council, and over 70 local employers, combines rigorous academic instruction, a sequence of worksite learning experiences, and additional supports after high school. One of the hallmarks of community-connected learning is a commitment to increase students' opportunities for college and career success. This means that the school-community partners need to set specific goals and outcome measures that they will monitor for several years after high school. The first tool offers an example of the goals, outcome measures, and commitments agreed to by Boston's school district and its business and community partners. The chapter then presents two tools communities can use in setting up a system of regularly surveying high school graduates.

While virtually all schools state that their goal is to prepare young people for productive lives after high school, many do not know how their students actually fare after graduation. With dropout rates of 28% in bachelor's degree programs and 57% in associates degree programs, it is clear that many students who plan to attend college do not actually graduate with a certificate or degree. There is also evidence that many young people spend years floundering in the labor market, moving through temporary or low-wage jobs with few benefits and no security. Information about how young people are faring one, two, and even five years out of high school can help schools and their partners shape programs that give students the knowledge, skills, and habits of mind and work they need to succeed beyond high school.

NOTES ON THE TOOLS

Tool 5.1: Boston Compact IV

Since 1982, key stakeholders in Boston have made agreements and mutual commitments to improve student outcomes. These two pages are excerpted from the compact signed in 2000.

Tool 5.2: Key Steps for Surveying Graduates

These suggestions on how to track students' progress after high school are based on the experience of the Boston Private Industry Council, which conducts regular follow-up of high school graduates.

Tool 5.3: Sample Survey of Graduates

This sample telephone survey was developed by the Boston Private Industry Council in collaboration with Jobs for the Future and Boston Public Schools School-to-Career office to track students' postgraduate activities.

BOSTON COMPACT 2000

GOAL ONEMEET THE "HIGH STANDARDS" CHALLENGE

- A) Teaching and Learning Strategies
- B) Parents, Families and Community

Accountability Measures

- Graduation/Drop-out rates
- MCAS scores
- Stanford Nine scores
- · MCAS success after initial failure
- Attendance rate
- State funding for Boston Public Schools

GOAL TWO INCREASE OPPORTUNITIES FOR COLLEGE AND CAREER SUCCESS

Accountability Measures

- College and employment success rates (One year and five years after graduation)
- College retention (14th year completion rate)
- Graduates meeting the four year, public college admission requirements --GPA, SAT, required courses
 (Note: these are also the minimum requirements for four-year independent colleges)
- Students taking PSAT and SAT

GOAL THREE RECRUIT AND PREPARE THE NEXT GENERATION OF TEACHERS AND PRINCIPALS

Accountability Measures

- Qualified applicants for teaching positions (by content area, by race)
- Colleges and universities signing the new teacher preparation agreement (Teacher Preparation Institutional Agreement)
- "Professional development school" agreements between individual public schools and selected colleges and universities
- Applicants offered early hiring commitments annually for specific Boston schools
- · New teachers retained after first three years of teaching experience



COMPACT COMMITMENTS

CORPORATE

Boston Plan for Excellence in the Public Schools

- Provide coaches to support instructional improvement.
- Sustain Boston Plan for Excellence—Boston Annenberg Challenge initiative through ongoing fund raising effort.

Boston Private Industry Council

- Connect students to private-sector jobs during the summer, after school, and after graduation.
- Measure enhanced access of BPS graduates to the labor market and college.
- Connect graduates and dropouts with employment opportunities and careers through One-Stop Career Centers and the new Youth Opportunity Center.

COLLEGES AND UNIVERSITIES

Boston Higher Education Partnership

- Implement the GEAR UP initiative, which will prepare middle and high school students for higher education.
- Provide financial assistance to graduates of the BPS seeking access to higher education.
- Provide support services to promote retention of BPS students in colleges and universities through graduation.

Higher Education Information Center

- Provide information and counseling to high school students on higher education choices.
- Support the implementation of the GEAR UP initiative.

BOSTON PUBLIC SCHOOLS

Superintendent and School Committee

- Improve student achievement by:
- 1. sustaining the transition program for underachieving students
- 2. pursuing interventions into high schools with significant MCAS deficiencies, and
- 3. supporting high school restructuring systemwide.
- Continue the work of In-Depth Review teams and other ongoing and regular assessments to inform instructional practice.
- Establish a School Quality Task Force to identify and replicate successful practices in support of under-performing schools.

Boston Teacher's Union

- Expand professional development opportunities for teachers that align with state and local academic expectations.
- Support the mentor committee, a joint labor-management committee that trains current teachers to mentor new teachers in the BPS.

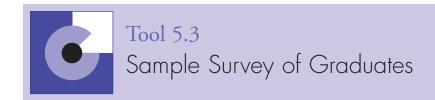
MAYOR

Build five new schools under the Community Learning Center model in the City of Boston.



Tool 5.2 Key Steps for Surveying Graduates

- Expect to use multiple strategies:
 - Mail out a survey.
 - Follow up a mailed survey with phone calls.
- Use all your resources and opportunities to maintain accurate contact information on graduates:
 - On exit surveys given to graduating seniors, ask for several phone numbers: the student's, a relative's, and that of one other person with whom the student expects to stay in touch.
 - Mail a postcard or call graduates in the fall following graduation to determine if their contact information is still correct. Use volunteers, other alumni, and faculty to contact students.
 - Hold reunions at the end of each school year or invite graduates to come back to the school to speak with newly graduating seniors. At that time, verify contact information and ask graduates to verify contact information for students they know through their own informal or school networks.
 - Ask coaches, choir directors, guidance counselors, and other staff who may have formed personal relationships with students to forward their updated contact information to a central school database.
 - Identify an alumni chairman to stay in touch with graduates.
 - Consider hiring students to track down missing graduates; one school district paid them \$1.00 per successful contact. Sometimes the students had to make several calls to find one graduate.
- Create incentives for graduates to respond:
 - Offer workshops on relevant topics such as finding jobs, moving up the career ladder, or college survival tips.
 - Secure discount certificates from local businesses for each respondent.
- Create a student project: high school students could design a survey, contact graduates, do the statistical analysis, and make recommendations to the school, the business community, and postsecondary institutions about how to better help graduates with the transition after high school.



This telephone survey is used in Boston to track the postgraduate activities of students who participated in ProTech, an intensive work-based learning program. The results connect to a data-base with detailed information on each student's coursework and work-based learning experiences. In the absence of such a data-base, a school would need to add questions designed to garner information on the student's high school experiences.

Name/location of employer:Your title:		
Is this job related to your future career? Working part-time (including work-study) Name/location of employer:		
Your title: Is this job related to your future career? Going to school full-time (Name of college: _ Going to school part-time (Name of college:		
□ Planning to attend school □ Caring for a child or children □ Caring for a family member □ Other If you were working in April 1997, how much of the working □ \$3.50 - \$4.99 □ \$5.00 - \$6.99 □ \$7.00 - \$8.99 □ \$7.00 - \$10.99 □ \$11.00 - \$12.99 □ \$13.00 - \$14.99 □ \$15.00 or more □ Not paid hourly, yearly salary □ Worked full-time	-	

Tool 5.3 Sample Survey of Graduates

Attended school full-time (Name of school:			
No Yes, if yes: number of semesters completed by June 1997?	□ Entered th □ Job Corp □ Cared for	e military	
 Not yet earned a degree or certificate Certificate Bachelor's Degree 6. Which of the following reasons were factors in your decision not to attend school or your decision to stop attending? Check all that apply. Not applicable, I am currently attending school Not applicable, I completed a degree/certificate already I wanted to work more hours I wanted to take a break from school Too expensive I didn't want to go to school anymore I didn't need school for the type of work I do or want to do I didn't think that I would be accepted I didn't receive enough financial aid to go to school I have to work to support myself and/or family I have children/family to take care of at home I joined the military What is the highest level of education you plan to complete in your future? Check only one. No school beyond high school Two-year (Associate's) Degree Certificate training program	□ No □ Yes, if yes	: number of semesters comp	leted by June 1997?
stop attending? Check all that apply. Not applicable, I am currently attending school Not applicable, I completed a degree/certificate already I wanted to work more hours I wanted to take a break from school Too expensive I didn't want to go to school anymore I didn't need school for the type of work I do or want to do I didn't think that I would be accepted I didn't get accepted to where I applied I didn't receive enough financial aid to go to school I have to work to support myself and/or family I have children/family to take care of at home I joined the military 7. What is the highest level of education you plan to complete in your future? Check only one. No school beyond high school Two-year (Associate's) Degree Certificate training program	☐ Not yet ed or certifice	arned a degree ate	□ Associate's Degree
 □ No school beyond high school □ Two-year (Associate's) Degree □ Certificate training program 	stop attendir Not applic Not applic I wanted t Too expen I didn't we I didn't thi I didn't the I didn't rec I have to v	ng? Check all that apply. cable, I am currently attending cable, I completed a degree to work more hours to take a break from school ansive and to go to school anymore and to go to school anymore and school for the type of work that I would be accepted at accepted to where I applied to the ceive enough financial aid to work to support myself and/ldren/family to take care of	ng school e/certificate already ork I do or want to do l ed o go to school or family
	□ No schoo □ Two-year □ Certificate	l beyond high school (Associate's) Degree e training program	ou plan to complete in your future? Check only one.

 □ Master's Degree □ Doctorate (M.D., Ph.D., J.D., etc.) □ Don't know □ Other 	
 8. What was the highest level of education the following people in your family completed? a. Your mother/step-mother/guardian: Check only one. Attended but didn't complete high school High school Some college Associate's (2 year) Degree Bachelor's (4 or 5 year) Degree Advanced Degree Does not apply 	
 b. Your father/step-father/guardian: Check only one. Attended but didn't complete high school High school Some college Associate's (2 year) Degree Bachelor's (4 or 5 year) Degree Advanced Degree Does not apply 	
9. List the occupation of your parents/guardians. If at home write "home." a. Your mother/step-mother/guardian: Job title: Name of employer: b. Your father/step-father/guardian: Job title: Name of employer:	
10. Please feel free to make any additional comments here, (i.e., How did your high school experience prepare you for employment and/or postsecondary education?)	
THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY!	

Adapted with permission from the Boston Private Industry Council

SECTION B Competency-Based Assessment and Admissions

Community-connected learning is based on the premise that a key to high performance is not only what students know but also what they can do and will do with that knowledge when they are faced with problems that are more complex or ambiguous than those found in high school texts. The challenge is how to capture or document this kind of learning so that it can be used, for example, in college admissions or employment decisions. The tools in this section represent cutting-edge work that is going on in the documentation and presentation of high-performance competencies—such as the ability to find, organize, and use information.

NOTES ON THE TOOLS

Tool 5.4: Tools and Methodologies for Assessing High-Performance Skills

This is a tool JFF has developed to help secondary and postsecondary educators and their partners consider a range of methodologies—from off-the shelf instruments that can be purchased and used "as is" to methods that require customization and varying degrees of systems change. The list is meant to be suggestive rather than exhaustive.

Tool 5.5: Discussion Guide: Competency-Based Transcripts

Teachers can use this protocol to explore the issue of how best to document high-performance competencies. The tool asks teachers to consider two samples of competency-based transcripts. The first contains the transcript template and a sample rubric from a competency-based assessment system that Jobs for the Future has helped the New Hampshire Department of Education develop in collaboration with secondary and postsecondary educators and members of the business community. The transcript is currently being piloted in four New Hampshire high schools and, it is hoped, will eventually become part of the admissions process for public and private postsecondary institutions in the state. The second is one student's transcript from the Met, a system of small high schools in Providence, Rhode Island, in which students develop their skills and knowledge through community-connected learning experiences.



Why Competency Assessment?

- Provide a means to capture learning that takes place in community and workplace
- Indicate extent to which students who don't perform well on standardized tests have gained knowledge and skills connected to future success
- Indicate ways in which curricula can be enriched to include high-performance skills
- Provide a bridge to local workforce development initiatives



Tool 5.4 Tools and Methodologies for Assessing High-Performance Skills

Level of System Change Required/Assumed	попе	none	none	попе	Requires professional development to help teachers incorporate standards into teaching practice and to assess student performance
Tool/Method Requires Customization?	ОП	Ю	With adaptation, could be used by schools	00	No. Some districts customize by developing locally based exemplary work samples.
Competencies	Applied mathematics; applied technology; listening; locating information; observation; teamwork; writing	Interacting with others; listening; structuring work activities; graphs	Functioning in team settings; organizing and prioritizing tasks; conducting research and analysis to solve problems	Taking responsibility; working in teams; persisting; sense of quality; adapting to change; problem-solving; information processing; systems thinking	Problem solving; communication; learning and self-management; working with others
Audience/Uses	Schools, regional partnerships, businesses, states	Schools, regional partnerships, adult workforce development programs, businesses	Job interviews in private sector	Schools, colleges, adult workforce development programs	Districts, for implementation in classrooms
Method	Paper-and-penail; some video/audio	Video-based paper-and-pencil	Simulations	Paper-and-pencil self-assessment	Work samples with rubrics
Assessment Tool contact info	Work Keys ACT, Inc. 3355 Lenox Rd. NE Suite 320 Atlanta, GA 30326 404-231-1952	Workplace Success Skills Learning Resources, Inc. 700 Canal St. Stamfold, CT 06902 203-637-5047	SHL Job Simulations SHL North American Headquarters Flat Iron Park, West 2555 55* St, Suite 210D Boulder, CO 80301 303-442-5607	Working H&H Publishing, Inc. 1231 Kapp Drive Clearwater, FL 33765 800-366-4079	New Standards Applied Learning Standards Nat. Ctr. on Education & the Econ. 700 11*51. NW, Suite 750 Washington, DC 20001 202-783-3668

Tool 5.4 Tools and Methodologies for Assessing HighPerformance Skills

	Method	Audience/Uses	Competenices	Tool/Method Requires Customization?	Level of System Change Required/Assumed
Exempropries	Exemplars/locally developed rubrics and portfolios	Piloting in four schools in New Hampshire; eventual use by all New Hampshire schools	Decision-making and problem-solving; self-management; communication; ability to work with others; use of technology, research, analysis	Yes. Districts in other states would have to customize because the transcript is based on New Hampshire's curriculum frameworks.	System is the result of collaboration between state Dept. of Education, postsecondary, and business partners; requires professional development for implementation.
Rubrics alterna	Rubrics/portfolios as part of alternative transcript	Piloting in two schools in California	Coalition of Essential Schools' Habits of Mind, technology; collection and organization of information; communication of ideas, working with others	Yes. Individual schools identify own learner outcomes and revise rubrics accordingly.	Requires agreement with postsecondary institutions to credit transcript for admissions; requires professional development on scoring for teachers
Portfolios; trained ass exemplars	Portfolios; credentialing by trained assessors using exemplars	Admission to postsecondary institutions across England	Communication; numeracy; information technology; ability to plan work; evaluate alternatives	Yes. Extensive customization would be required to adapt to U.S.	High schools and postsecondary institutions must be certified to offer GNVQ
Rubrics		Supervisors of work-based learning; classroom teachers	Communication and literacy; organizing and analyzing information, problem-solving; using technology; understanding all aspects of the industry; taking responsibility for career and life choices	No, but could be adapted using locally determined list of competencies.	Assumes partnership between businesses and schools; supervisors and partnership coordinators are trained in use of tool
In devel local site	In development; currently, local sites use portfolios	Schools, colleges, businesses, welfare-10-work programs, one-stop career centers, and school-to-work programs	Communication, decision- making, interpersonal, and lifelong learning skills	Tools and materials are in development.	Took and materials are in development.



Step 1

Review the New Hampshire Competency-Based Transcript and the Met Student Transcript. The goal in New Hampshire is to create a transcript that will provide postsecondary and business partners with a way to gain more information about students' strengths and needs than a traditional transcript provides. The Met has attempted to create a transcript consistent with its unusual approach in which students work towards school-wide learning goals through pursuing individual interests and individual and group projects at the school and in the community.

Step 2

How would you compare what you could learn from each of these to what you could learn from a traditional transcript? Consider your answer from the perspective of a:

- Student
- Parent
- Teacher
- College Admissions Officer
- Employer

Step 3

Where in our school do students have the opportunity to develop each of the high-performance competencies, learning goals, and personal qualities represented in these two transcripts?

Step 4

What kinds of outside-of-school experiences (e.g., in the community, at worksites) might help students develop these competencies?

Step 5

How could we develop an assessment and transcript system that incorporated the skills and knowledge students are gaining outside of the classroom? What kinds of new school roles and responsibilities might that imply?

tudent Name:				Birth D	ate:				
ocial Security:				Addres	s:				
arent(s)/Guardian(s	s):								
	•			Phone: GPA:					
Start Date: Last Updated:				Gradu	ation Date	e:	GP	'A:	
his transcript contain Attendance; Course Work and Independent Project Community Service Additional Information Comments	Competen cts, Exhibit e, Work-Bo ation; and	cy Perforr ions, and ased Learr	mance S Portfoli	Summaries o Demons	strations;	a-Curri	cular Activitie	es;	
9 [™] Grade	30 30100	Daysj		11™ €	Frade				
10™ Grade				12™ €	Frade				
10 [™] Grade . Course Work and	l Compete	ncy Perfor	rmance						
. Course Work and	l Competer	ncy Perfor	rmance						
. Course Work and	I Compete	,		Summarie	es	·)	Final Grade	Credits	
. Course Work and	d Competer	,			es	·)	Final Grade	Credits	
. Course Work and 9 TH Grade Course Work	·	Inter	rim Grade	Summarie	es	·)	Final Grade	Credits	
. Course Work and 9 TH Grade Course Work Course Name	·	Interies (rubric s	rim Grade	Summarie	es	to Work	Final Grade Inform (Use of Technology,		
. Course Work and 9 TH Grade Course Work Course Name Competency Performa Decision Making	ince Summar	Interies (rubric s	rim Grade	Summarie es (quarter d	or semester Ability	to Work	Inform	nation	
. Course Work and 9 TH Grade Course Work Course Name Competency Performa Decision Making	ince Summar	Interies (rubric s	rim Grade	Summarie es (quarter d	or semester Ability	to Work	Inform	nation	
. Course Work and 9 TH Grade Course Work Course Name Competency Performa Decision Making and Problem Solving Skills	ince Summar	Interies (rubric s	rim Grade	Summarie es (quarter d	Or semester Ability (With (to Work Others	Inform	nation	
. Course Work and 9 TH Grade Course Work Course Name Competency Performa Decision Making and Problem Solving Skills 10 TH Grade Course Work Course Name	Ince Summar Self Manage	Interies (rubric s	rim Grade	Summarie es (quarter d	Or semester Ability (With (to Work Others	Inform (Use of Technology,	nation Research, Analys	
. Course Work and 9 TH Grade Course Work Course Name Competency Performa Decision Making and Problem Solving Skills 10 TH Grade Course Work	Ince Summar Self Manage	Interies (rubric s	rim Grade	Summarie es (quarter d	Or semester Ability (With (to Work Others	Inform (Use of Technology,	nation Research, Analys Credits	

11 [™] Grade								
Course Work	erim Grades (qu	ades (quarter or semester) Final Grade						
Course Name								
Competency Perform	ance Summa	ries (rubric	scores)					
Decision Making and Problem Solving Skills Self Manag		ement	Communication Skills		Ability to Work With Others		rmation y, Research, Analysis	
12 [™] Grade								
Course Work		Inte	erim Grades (qu	arter or s	emester)	Final Grade	Credits	
Course Name								
Competency Perform	ance Summa	ries (rubric	scores)					
Decision Making and Problem Solving Skills	Self Management Communication Skills		lls	Ability to Work With Others		Information (Use of Technology, Research, Analysis)		
3. Independent Pro	jects, Exhib	pitions, ar	nd Portfolio D	emonstro	ations			
List (with class name	· ·	•			Date(s)	Evalu	ıation	

4. Community Service, Work-Based Learning Experiences, and Extra-Curricular Activities

List (with class name if applicable)	Date(s)	Evaluation
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Additional Information

Schools may elect to list NHEIAP test results, SAT scores, class rank, certifications, or other information.

6. Comments

Schools may record comments from teachers, counselors, worksite supervisors, and/or others.

Descriptors of Cross-Cutting Competencies

Decision Making and Problem Solving:

Making developmentally appropriate decisions and using problem-solving strategies to investigate and understand in a variety of contexts.

Self-Management:

Demonstrating individual qualities such as responsibility, self-management, integrity, respect for self and others, flexibility, confidence, and a willingness to explore.

Communication Skills:

Using a variety of methods, appropriate to the purpose and audience, to communicate effectively.

Ability to Work with Others:

Working effectively with others, including people from diverse backgrounds, and contributing to group efforts by sharing ideas, suggestions, and workloads.

Information (Use of Technology, Research, and Analysis): Using information-gathering techniques in collecting, analyzing, organizing, and presenting information.

The scoring rubrics used to assess the Cross-Cutting Competencies are available upon request. The rubric for "Information Competency" follows on the next page.



RUBRIC FOR INFORMATION COMPETENCY

(Use of Technology, Research, Analysis)

Performance Descriptor (from the NH Curriculum Frameworks): The student will use information-gathering techniques in

collecting, analyzing, organizing, and presenting information.

Ludonnant Ctatomont	Guidance Notes for Assessors	Evidence (types of evidence that may be assessed, but not limited to this list)
Judgement Statement Evidence is gathered on at least three (3) separate occasions across all subject areas and accurately reflects the dimensions listed below.	Guiunice Notes for Assessors	illitied to this tist)
Gathering: Evidence provided will demonstrate the student's ability to: use a minimum of four (4) different types of sources per assignment use appropriate documentation methods use time and content appropriate material show use of a plan for gathering information use effective inquiry through the interactive communications process	Technology must be used as one of the types of sources. Students are required to use standard documentation formatting (e.g. MLA) acceptable to individual districts.	Interview, notes, journal, observation, video, diary, portfolio, self-assessment, chart, concept map, flow chartlog book, essay, oral/written test
 Analyzing: Evidence provided will demonstrate the student's ability to: effectively support a thesis which leads to a satisfactory conclusion verify the relationship between thesis, supporting evidence, and conclusion interpret and evaluate source material for validity use a variety of technologies 	Evidence is from a minimum of four (4) different types of sources.	Interview, conference, group discussion, questionnaire, port- folio, reflective writing,work- sheet, spreadsheet, outline, sorting, log book, label, model, graph, sequencing and order- ing, check list, time line
Organizing: Evidence provided will demonstrate the student's ability to: • formally outline proposed product • use a date filing and organization system • understand and justify use of a particular organizational system	Organizational system can be notebook, portfolio, floppy disk, etc.	Data organizing, Web multi- media presentation, project, demonstration, collage, map, article
Presenting: Evidence provided will demonstrate the student's ability to: use a minimum of four (4) pieces of evidence to support the main thesis effectively present the thesis and evidence using at least three (3) interactive communications processes target presentation to the audience	The same evidence/demonstration may be used to assess this dimension and the visual/audio representation dimension of the Communications Skills Competency.	Video, diorama, cartoon, poster, mobile, poem, drama, model, photo, mime

The Metropolitan Regional Career and Technical Center

80 Washington Street Rm 436 Providence, RI 02903 (401) 277-5048 Fax 94010 277-5049 362 Dexter Street Providence, RI 02907 (401) 222-4893 Fax (401) 222-4896

	Name
	Address
	Address
photo	
hn Doe	Parent/Guardian
	DOB
	S. S. #
	Entered Met in grade
	Date graduated or ???

This is a cumulative record for grades 10, 11, 12

attended 9th. grade at _____ H.S. East Providence, RI

Student Highlights

John Doe is a hard working and committed student. As a junior he enrolled in his first college class. Through dedication and organization, he passed it with a "B". During the class he decided to pursue a career in writing. He is currently working on an article for the newspaper The Providence American. This will be his first published byline, but certainly not the last.

Senior Thesis Project

John Doe is writing a 100-150 page autobiography. He will self-publish this autobiography. In addition, he will be writing in the publication, *The Providence American*, where he interns with the editor.

College Credit Earned

Course Title: Children's Literature

Name of College: Community College of Rhode Island

Date of Course: Spring `99 Grade Received: B

Course Title: Name of College: Date of Course: Grade Received:

Course Title: Name of College: Date of Course: Grade Received:

Course Title: Name of College: Date of Course: Grade Received:

> WE DO NOT RANK OUR STUDENTS Total Number in Class: 48 PLEASE READ SCHOOL PROFILE

Applied				wo	rked on goals	through			Lev	el of a	chiever	ment
Academic Learning Goals	Met Center Workshop	College Course	Internship	Internship Project	Independent Project	Outdoor Leadership	Service Learning	Other Specify	1	2	3	4
Communication				,								
Writing	10, 11	11	10, 11, 12	10, 11, 12	11, 12		11, 12		0	0	0	•
Reading	10, 11, 12	11	10, 11, 12	10, 11, 12	10, 11, 12		10, 11		0	0	•	0
Speaking	10, 11, 12	11	10, 11, 12	10, 11, 12					0	0	•	0
Computer/Multimedia	10, 11		10, 11, 12	10, 11, 12	11, 12				0	0	0	•
									0	0	0	0
Quantitative/Reasoning												
Tables/Graphs	10, 11		10, 11	10, 11	10		10, 11		0	0	•	0
Problem Solving	10, 11		10, 11	11	10		10, 11		0	0	•	0
Word Problems	10, 11				10				0	•	0	0
Algebra	10, 11, 12		10, 11	10, 11	10, 11				0	•	0	0
									0	0	0	0
Emprical Reasoning												
Research	10, 11	11	10, 11, 12	10, 11, 12	10, 11, 12		10,11		0	0	•	0
Logic			10, 11, 12	10, 11	10				0	•	0	0
Developing Strategies	10, 11		10, 11, 12						0	0	•	0
									0	0	0	0
									0	0	0	0
Social Reasoning												
Citizenship	10, 11, 12		10, 11, 12	10, 11, 12	10, 11, 12		10, 11		0	0	0	•
Cooperation			10, 11, 12	10, 11	10, 11		10, 11		0	0	0	•
Conflict Resolution			10, 11, 12	10, 11	10, 11		10, 11		0	0	0	•
History	10, 11, 12		10, 11, 12	10, 11, 12					0	0	•	0
									0	0	0	0
Personal Qualities												
Responsibility	10, 11, 12	11	10, 11, 12	10, 11, 12		10, 11, 12			0	0	0	•
Organization	10, 11, 12	11	10, 11, 12	10, 11, 12		10			0	0	0	•
Physical fitness			10, 11, 12	10, 11, 12		10, 11			0	0	0	•
Leadership			10, 11, 12	10, 11, 12		10, 11, 12			0	0	•	0
									0	0	0	0

Level of Achievement Scale: 1 = in progress 2 = met expectations 3 = exceeded expectations 4 = exceeded with distinction

Student's portfolio contains evidence of work referenced above.								
Authorized Signature	Title	_Date	_/	/				

Standardized Test Scores

See Attached Score Labels



Schools are awash in data. Every piece of student work, every test score, every disciplinary action is a piece of data as to how well the school is meeting its goals. The challenge of data-based reform is to organize and interpret all of this data in a systematic way that helps schools and their partners to draw conclusions and make decisions.

Chapter One lays the groundwork for benchmarking, a process of goal-setting and measurement that is a key strategy for helping all of the partners involved in systemic education reform stay on track. In this chapter, we focus in on the use of data inside the school—the key institution in the community-connected learning partnership.

The intent of this chapter is to help teachers and administrators see data as a tool that helps them to do their work, rather than as a potential weapon to be used against them by critics. The tools and examples in this chapter are designed to help schools use data to build more effective learning environments for students. In the first section of this chapter, the focus is on using data to guide organizational change in schools. The tools in the second section specifically address the ways that teachers can use data to improve classroom practice.

Reasons to Use Data in Schools

- Ground changes in practice on solid evidence
- Engage, inform, and engender public support
- Protect and nurture innovation
- Redefine success to be broader than test scores
- Provide a fuller picture of the school, based on multiple measures

CHAPTER 6

Using Data to Guide Reform

SECTION A

Using Data to Guide School-Based Action Planning

Tool 6.1:

Steps for Using Data to Guide School Change

Tool 6.2

Mapping School Initiatives and Projects

Tool 6.3

Checklist for Survey Design

SECTION B

Evidence-Based Change in the Classroom

Tool 6.4:

Using Research Techniques to Deepen Reflective Practice

Tool 6.5:

A Guide for Reporting on Teacher Research

Authors:

Cheryl Almeida Michelle Swanson Using Data
for Continuous Improvement

Revise practice
based on evidence

Look at evidence to
assess progress

Implement
changes

Use data to
establish, reform
priorities

When a school is engaged in data-based change, a continuous improvement process is evident. The school enters the process by using data to establish priorities for organizational change and improved student outcomes: specifically, what changes are needed in the organization and practice of the school, and how will the school collect evidence, in terms of both reform practices and student outcomes? The next stage of the process involves looking at the evidence to assess the progress of efforts directed at these priorities, and then revising of practice for greatest impact. Finally, the school uses data to modify its priorities or set new ones.

Although it is critical for those who have primary responsibility and accountability for student outcomes to feel control over the collection and analysis of data in their school, insiders can also benefit from bringing in outsiders with expertise in evidence-based change. Such experts can help practitioners see how existing data can be compiled in new ways to provide valuable information on practices that lead to student improvement. One vital role an outside expert can play is to help teachers identify and build on data the school or the district already gathers to assess reform priorities.

In using this section, schools may benefit from working with a consultant who has experience in data-based reform. Districts in the Jobs for the Future Connected Learning Community Network have found such help from the district office, a local intermediary, and independent consultants.



NOTES ON THE TOOLS

Tool 6.1: Steps for Using Data to Guide School Change

This tool is designed to help school teams build an action plan in which the collection and analysis of data is a part of the process they control, rather than something being done to them. This can be used by a leadership team for the whole school or by small learning community teams.

Tool 6.2: Mapping School Initiatives and Projects

Schools often feel overwhelmed by what can seem like disconnected and competing demands for evidence coming from initiatives that require documentation of various sorts. This exercise can help a team manage these requests and plan ways to use evidence to support their change initiatives in a more cohesive way.

Tool 6.3: Checklist for Survey Design

Some valuable information may not be readily available—for example, how teachers, students, and parents are experiencing and perceiving new teaching practices or organizational changes. Surveys often prove to be useful tools for gathering this type of data. They can also provide valuable information for identifying opportunities and challenges in a school's or district's reform efforts and pointing out possible next steps. The purpose of this checklist is to help schools and their consultants take into account critical variables when designing and administering a survey.

Outside Experts Can Help To:

- Create evidence-based action plans
- Identify and build on existing data
- Build internal data systems
- Create links among data sources
- Analyze and interpret data
- Guide survey design and execution
- Bring findings to the public

C

Tool 6.1

Steps for Using Data to Guide School Change

Go through each step and rate your school's or team's progress according to the four-point scale provided.

KEY ① = Not Yet Considered, ② = Planning, ③ = Early Implementation, ④ = Operational

1. Data is used to develop an	action plan with	focused priorities.
-------------------------------	------------------	---------------------

- ① ② ③ ④ a. The team has reviewed available student outcome data to look for any significant patterns, trends, or weak areas. Data may include, for example: number of absences and/or behavioral referrals by grade, student work products, most recent standardized test results, and evaluation of work-based learning plans.
- ① ② ③ ④ b. Using the available data, the team has identified organizational/change priorities and student outcomes to work on for the school year.

2. Agreement exists on which measures to use to monitor progress.

- a. The team has agreed on which measures to use to monitor progress in implementation of reform practices. For example, if a priority is to improve students' reading and writing by teaching these skills across the curriculum, then measures might include: number of teachers who designed lessons and projects that explicitly address reading and writing skills, length and quality of reading and writing assignments, and number of students who have work-based learning plans that include regular use of reading and writing on the job.
- D. The team has agreed on which measures to use to monitor progress in student outcomes. In the example given above, the team could use outcome measures such as the following: improvements in student reading and writing as measured by teacher scoring of pre- and post-writing test and other student products and improvements in students' standardized test scores.

3. The team has developed a process for gathering and reviewing data.

- (1) (2) (3) (4) a. In collaboration with the appropriate district office, the team has determined what data it needs for priority implementation and outcome measures, who will gather the data, and how it will be compiled.
- ① ② ③ ④ b. Whenever possible the team uses data that is already gathered by the district, school, or small learning communities to assess implementation and outcome priorities.
- ① ② ③ ④ c. The team has set aside time during meetings or common planning time to review and discuss data.

4. Analysis of data drives continuous improvement and revision of practice.

a. The team has adopted an evidence-driven approach to improvement. That is, it has committed to: using available data to establish priorities for school growth and student improvement; identifying clear measures and timelines to monitor priorities; using data from monitoring measures to revise practice and establish new priorities; and continuing to engage in this process over time to achieve long-term goals.



STEP 1:

In Table 1, found on the next page, provide the following information for each project or initiative affecting your building's reform agenda:

Initiative/Project: Is this a district initiative? A school-specific project? A national project?

Funding: Where does the money that supports the initiative or project come from—the state? District? Foundation grant? Federal grant? Some combination?

Directive or Goal: What's the primary purpose of the initiative or project?

For example, is it to create or expand small learning communities? Improve literacy? Expand and deepen teachers use of inquiry-based instructional approaches?

Participants: Who is involved in the initiative or project at the school? For example, is it all grades, or just selected ones? Which teachers or other staff have a role?

Timeline: What period of time does the initiative cover? Is it part of a school year? A complete school year? Several years?

Data: What data or evidence is needed for the initiative or project? This can include data that documents changes in the organization and/or operation of the school, as well as changes in student achievement and/or teacher practice.

Products: Does the project or initiative require the school to produce any products? This may be, for example, a final report on outcomes resulting from the project, a comprehensive school reform plan, and/or a completed assessment tool.

STEP 2:

Once you have completed Table 1, look to see whether similar data and products are required by different initiatives. Cluster the data requirements that are similar across the various initiatives and enter this information in Table 2 in the column labeled **Data Requirements** (e.g., three different initiatives may ask for average daily attendance).

STEP 3:

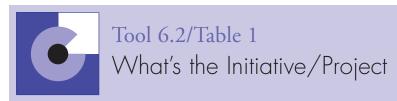
In the column labeled **For Which Initiatives and Projects?** in Table 2, write down the answer to this question for each category of data recorded in step 2.

STEP 4:

Then, cluster the product requirements that are similar and enter that information in the column labeled **Product Requirements** of Table 2 (e.g., three different initiatives may ask for a comprehensive school reform plan). Again, for each product, note which initiatives require it and record this information in the column labeled **For Which Initiatives and Projects?**

STEP 5:

This will help you see how you can use data and products, or parts of products, across your initiatives and projects.



•

INITIATIVE	/PROJECT?
Directive/Goal?	Timeline?
Participants?	Data Needed?
Funding?	Products Requested?

DATA REQUIREMENTS	FOR WHICH INITIATIVES AND PROJECTS
PRODUCT REQUIREMENTS	FOR WHICH INITIATIVES AND PROJECTS

Collaborate with those closest to your target audience in the design of the survey. For example, in designing a survey of high school seniors, consider including some seniors as well as their teachers on your design and/or review team.
☐ Clearly define the purpose(s) of the survey before you begin to generate the questions.
☐ Take into consideration the resources you have for analysis of data in determining the length and complexity of the survey. You may have a number of important key questions to address but limited resources for analyzing your data and drawing conclusions. Prioritize your questions and match the survey to your resources.
Use close-ended questions (check-off lists, yes/no or scaled answers) whenever possible. Open-ended questions (fill in the blank) can provide rich information but are often difficult to interpret and time-consuming to analyze.
Consider your survey audience when determining the length of the survey. For example students can get bored and lose focus quickly with longer surveys.
☐ Spend time on layout. It can make a large difference in whether you get a high return rate.¹ And if your audience misunderstands questions because of poor design, that data becomes worthless.
☐ Set aside time and resources for follow-up to ensure a reasonable return rate. This can involve phone calls, visits, and, if necessary, re-surveying an audience. Remember the higher your response rate, the more meaningful the data.
Whenever possible, "pilot" the survey by giving it a test run. This can be done informally with a small group of the targeted audience. Even a handful of respondents can provide invaluable information on survey design and save you significant time and energy later in data analysis and interpretation.

¹The survey return for response rate is the number of completed surveys received in relation to the total number sent out.

Evidence-Based Change in the Classroom

With the renewed focus on accountability in education, teachers are frequently under the gun to prove that their instruction gets results, particularly in terms of higher test scores. Under this pressure, teachers can be understandably hesitant to try out new and innovative approaches. The challenge is to support teachers in using community-connected learning strategies while helping them to address the vigorous demands for accountability.

In our work with teachers, we have designed a form of action research that enables teachers to systemically assess the efficacy of their instruction, especially the effectiveness of changes in their teaching practice. Put simply, we help teachers learn to use research techniques to strengthen the connection between their practice and desired student outcomes.

These techniques are generally applied to "data" that teachers already gather to assess student learning. For example, such data might include the degree to which students are completing tasks, reflective entries in student journals, portfolio pieces produced by students, and/or grades. Through this process, teachers expand and deepen their concept of what "counts" as evidence of learning, and they use research methods to look at what the evidence tells them about student learning and their teaching practice.

NOTES ON THE TOOLS

Tool 6.4: Using Research Techniques to Deepen Reflective Practice This tool provides the questions and explanations guiding this approach to teacher research. This is followed by a completed example that shows how teachers use the questions to design an "intervention" and gather evidence to assess its effectiveness at achieving the desired student outcomes.

Tool 6.5: A Guide for Reporting on Teacher Research

This is a format for teachers to use in writing up the results of their classroom research. Documenting their research allows teachers to share their findings with a broader community of colleagues and helps to build a body of evidence that provides important lessons about the value of community-connected learning approaches in the classroom. The section concludes with the completed write-up of the example of teacher research shared in the previous section.

Questions Guiding the Approach

Design Questions:

What main learning outcomes do you want to work on?

List the one or two primary learning goals you are designing your instruction to address.

What is your instructional design?

• What is/are the project, project revision, learning activity(ies), or approach you will implement to lead your students to the desired learning outcomes?

What is the evidence (or set of indicators) of student success?

• How will you know that your instruction has led to the desired changes in student learning? That is, what are the "indicators of success" you will use?

What evidence do you want to quantify and look at more closely?

List the one or two indicators of success you want to link more directly to your instruction—that is, the evidence that you are most interested in exploring in relation to your practice. This is the evidence you use research methods to gather and assess.

Reflective Questions for Looking at the Data:

What does the evidence tell you about student learning? For example:

- student learning overall
- individual student growth
- students' perspective on their learning experience

What does the evidence tell you about your practice?

Based on your evidence, what changes would you make in your practice to improve student outcomes?



Teacher: Meagan Sternberg Grade: 8th
School: Sunrise Middle School, N.Clackamas, OR Subject: Science

What are the main learning outcomes you want to work on?

Improvements in students knowledge and practice of the scientific inquiry process, specifically students ability to:

Frame an investigation

Design an investigation

Collect and present data, and

Analyze and interpret results

What is your instructional design?

A teacher-guided project and a student-directed project, both of which are designed to allow students to produce scientific inquiry work samples.

Project 1: Teacher-Guided

In small groups, students will investigate the effects of different variables, which I will assign, on the distance a water rocket will travel. Groups will construct and test the rockets. Individuals will generate hypotheses, design the investigation, collect data, and analyze results. Each student will produce individual work samples.

Project 2: Student-Directed

Each student will pick a topic of interest to investigate. S / he will propose a key question to frame the investigation, design it, collect data, and analyze the results. Each student will provide work samples.

What is the evidence (or indicators) of student success?

- * Work samples
- * Student survey responses and reflections
- * Journal writings
- * Small group and classroom discussions
- * Project exhibits and presentations

What evidence do you want to quantify and look at more closely?

- * Work samples assessed using the Oregon Department of Education Scientific Inquiry Dilot Scoring Guide
- * Student survey responses and reflections

The goal is to keep the format informal and the writing accessible to a broad audience. Try to imagine yourself actually writing to a colleague or friend. You want to try and tell a story about your research. Be creative. You want to keep your reader engaged without losing him or her in jargon, etc. Try to capture what led you to look at the particular instructional design (e.g., your project, unit, lessons) and why you decided to gather the evidence or data about learning that you did. Focus on the "aha's" that you got about teaching and learning from looking at your evidence.

While you are welcome to tell your story in any way that suits you, it should answer the following questions:

What was your instructional design?

 A brief description of the project, project revision, learning activity(ies), or approach you used.

Why this design?

- What did you hope to accomplish in terms of student learning?
- What are the beliefs, early experiences, evidence, or questions behind your practice?

What evidence (data) did you gather to assess student learning?

What was your data? What did you do to gather it? How often, etc.?

(You should include some description of your data here—visuals, tables, written descriptions—whatever works.)

What does your evidence tell you about student learning?

- What conclusions can you draw from your data about your students' learning?
- What surprised you?
- •What confirmed what you expected?

What does your evidence tell you about your teaching practice?

- What does the data tell you about your teaching practice? Based on your data, what would you change in your instructional design?
- What would you keep the same?
- •What advice or suggestions would you give to a colleague who was interested in adapting your design? Or how might you use the data to convince a skeptical colleague that it's worth taking the risk and trying it in his or her classroom?

Meagan Sternberg Sunrise Middle School North Clackamas, OR 1998-1999

INSTRUCTIONAL DESIGN

Receipt of the Oregon Department of Education Scientific Inquiry Pilot Scoring Guide brought forth the issue of scientific inquiry work samples. What does a scientific inquiry work sample look like? How does one design opportunities for students to produce them? Should they be teacher or student directed? How do teachers score these work samples using the state's scoring guide? Seeing as these work samples will become part of the state's Certificate of Initial Mastery (CIM) requirements within a few years, it seemed imperative to start working on these questions.

The strategy was to develop and implement a teacher-guided project and a student-directed project, both of which would allow students to produce scientific inquiry work samples. These were chosen to determine what type of project works best with students and teachers.

PROJECT 1: WATER ROCKETS (teacher-guided)

Students participated in activities to build a foundation in the concepts of force and motion. In groups of two to six, students investigated the effects of different variables on the distance a water rocket would travel. I assigned a variable to each group. The group constructed and tested the rockets. Individuals developed hypotheses, designed the investigation, collected data, and analyzed the results. Each student produced individual work samples.

PROJECT 2: SCIENTIFIC INQUIRY (student-directed)

After completing one work sample, students, individually, picked a topic to investigate. She/he developed a question to frame their investigation, designed the investigation, collected data, and analyzed the results. A work sample and poster were produced and presented at a science fair.

EVIDENCE

Data was collected on the work samples, which were scored using the pilot scoring guide (without formal training). This was done at the end of each project. In addition, data was collected on student reflections, which were collected before the first project and after each project. Oregon's Scientific Inquiry Scoring Guide includes a six-point rubric for each of the four traits specified on the next page. Students need to achieve a score of "4" or better to achieve benchmark for that trait.

WORK SAMPLE DATA

	_	#/ 70 UF	SIUDENIS F	CHIEVING BEI	NAMINIAN		
TRAITS #	PR	OJECT 1	PRO	PROJECT 2		OVERALL	
	#	%	#	%	#	%	
All	11	9.2	25	19. <i>7</i>	36	14.6	
Some	77	64.7	90	70.9	167	67.9	
None	31	26.1	12	9.4	43	7.5	
TOTAL	119	100.0	127	100.0	246	100.0	

	AVERAGE SCORE			
TRAITS	PROJECT 1	PROJECT 2	OVERALL	
raming	3.5	3.5	3.5	
esigning	3.3	3.5	3.4	
Collecting	3.4	3.6	3.5	
nalyzing	3.3	3.5	3.4	
AVERAGE	3.3	3.5	3.4	

Traits assessed by Scientific Inquiry Scoring guide:

Framing the Investigation Collecting and Presenting Data
Designing the Investigation Analyzing and Interpreting Results

REFLECTION DATA

TRAITS	AVERAGE CONFIDENCE			
	PRE	PROJECT 1	PROJECT 2	OVERALL
Framing	4.1	4.7	4.4	4.4
Designing	4.2	4.4	4.7	4.4
Collecting	4.3	5.0	4.7	4.7
Analyzing	4.1	4.2	4.0	4.1
AVERAGE	4.2	4.6	4.5	4.4

1 = not confident, 6 = very confident



CONCLUSIONS

Overall, students did pretty well considering this was the first attempt to use the Oregon Department of Education Scientific Inquiry Pilot Scoring Guide. Most students, 82.5%, met benchmark on some or all of the traits for the two projects. Only 7.5% of students did not meet benchmark on any of the four measured traits. Of all the traits, students did better and felt more confident with "Collecting and Presenting Data." However, students struggled with the trait, "Analyzing and Interpreting Results." They also felt less confident with this part of scientific inquiry.

Students performed slightly better on the work sample produced for the scientific inquiry project (#2) compared to the water rocket project (#1). This was probably due to the students having less experience when completing the water rocket project. Their confidence increased after completing the water rocket project and dropped slightly after completing the scientific inquiry project. This may by due to more direction and scaffolding available during the water rocket project.

I was worried at first when I looked at the data because so few students met benchmark on all traits. However, this was the students' first experience with the scoring guide, as well as my first experience. It seems that with practice, students will be able to succeed in producing scientific inquiry work samples that meet benchmark.

Based on this data, there are several things that I learned about my teaching. First, more direct instruction needs to take place for each trait in the scoring guide. Students struggled with some of the vocabulary and intent of the scoring guide. Special attention needs to be paid to the "Analyzing and Interpreting Results" trait. Students should be given more practice with teacherguided scientific inquiry projects before completing student-directed projects. I need to develop approximately three teacher-guided scientific inquiry projects for 8th graders to provide sufficient practice for CIM level work samples at the high school. These work sample projects should be embedded within the Grade 8 Benchmark Content Standards to provide more support and background for the students.



CONNECTED LEARNING COMMUNITIES Design Studios

As high schools try to reinvent themselves, school leadership teams search for places they can visit to "see the change" in action. It is becoming increasingly common for a team from one school to organize a study tour of another school that has a reputation for having successfully implemented such reforms as block scheduling, small learning communities, advisories for all students, and senior projects.

Although school visits can be inspiring to those who make them, it is much rarer for such visits to become a catalyst for change once visiting teams return to their own schools. The excitement soon fades in the day-to-day demands and routines of school. It is rarer still for such visits to be of benefit to the hosting school, where teachers can find the constant stream of visitors to be distracting and even annoying.

In an attempt to maximize the positive impact of school visits, both for the hosts and the visitors, schools in the Connected Learning Communities Network engage in "design studios"—carefully planned two-to-three-day school visits during which one or more visiting teams also engage in their own strategic planning process.¹ The process begins several weeks before the actual visit, as the visiting and hosting schools exchange materials about the design principles, key features, and practices of the hosting school that would be most useful as a focal point for the visit.

The primary purposes of the design studio are to deepen the understanding, in both the host and visiting school(s), of key design principles in action, to provide the hosting school with an opportunity to gain useful feedback and engage in continuous improvement, and to enable the visitors to use what they learn in creating their own action plans for what to do when they return home.

The tools in this chapter are designed to help the visiting and hosting schools

CHAPTER 7

Design Studios

SECTION A

Before the Visit

Tool 7.1:

Preparing for a Design Studio

Tool 7.2

What Will We Offer?

Tool 7.3

What Do We Want to See?

SECTION B

During the Visit

Tool 7.4

Observation Worksheet

Tool 7.5

Rigorous and Relevant Work

Tool 7.6

Trip Reflection

Tool 7.7

Action Planning Guide

Tool 7.8

Bringing it Back Home

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¹The design studio model was originally developed by the Metropolitan Career and Technical Center (the Met) in Rhode Island. Because of its reputation as a very "break the mold" school, the Met found itself inundated with visitors and constrained by the traditional "show and tell" nature of a school visit.



CONNECTED LEARNING COMMUNITIES Design Studios



Using Visitors as a Real Audience

The faculty at Sir Francis Drake High School have discovered that they can use visitors who come for design studios as an audience for student and/or teacher work by scheduling student presentations of project work for design studio days. After seeing a presentation, visitors provide feedback to the presenting students and their teachers.

proceed through the various steps in the design studio process. The schools that have hosted the process have found that the tools can also be used by schools that are giving or going to more traditional school visits as a way of enhancing the learning potential of that experience.

In addition, hosting schools have discovered that a design studio can be an occasion for professional development and enhanced communication inside of their own buildings. At Sir Francis Drake High School, in San Anselmo, California, for example, teachers who open up their doors to visitors and spend time meeting with them use the feedback that they get from visitors to gauge the extent to which teaching and learning in the school actually live up to their design principles. Drake has also formed its own internal "visiting team" of first or second-year teachers and of parents, who may not yet be entirely familiar with all of the change efforts in the school. This team goes through the design studio along with the visitors from other schools.

The first section of the chapter focuses on what schools need to do to prepare for a productive exchange. The reader will find guidelines, examples, and tools to help maximize the learning potential of the design studio. The second section provides tools and examples for use during the design studio itself.



SECTION A Before the Visit

One of the things that distinguishes a design studio from a school visit is that the process begins before the visiting school teams ever leave home. The hosting school sends out materials describing some of the design principals, key features, approaches, or practices that visitors could expect to see in action in the school. The visiting school assembles a team (teachers, administrators, parents, students), who meet to look over materials sent out by the hosting school, to match these with their own particular interests, and to select an area of focus for their visit. The team members then let the hosting school know what they would like to see, so that the hosts can prepare appropriately for the visit.

Before embarking, visiting team members spend time together highlighting the history of their school's reform efforts, (Schools have made use of the journey map activity on pg. 27 to do this.) The visitors also analyze the gap between current practices and their vision of the principles/practices they would like to see. (Schools have made use of the action planning tool on pg. 132.) During the visit, (usually on the second day) there is time for the visiting team to revisit its "gap analysis" and to come up with some specific action steps to take when it returns to its own school.

This initial work will be most productive if the visiting and hosting schools share a vocabulary for talking about principles and practices. The Connected Learning Communities Network has made use of the CLC Design Principles (see inset next page). However, any agreed-upon set of design principles could be used (e.g., the Coalition of Essential Schools 10 core principles, the New American High School Initiative in appendix).

The tools and templates presented here are designed to help the visiting teams and the hosting school carry out the preparations for a productive design studio. Several of these tools refer people to the journey map tool in Chapter 2 (pg. 27).



Putting Strategic Planning Skills to Use

After facilitating a strategic planning process for visiting school teams who attended the Rex Putnam High School Design Studio in North Clackamas, Oregon, teachers from the schools were asked by the central office to lead a strategic planning process for all of the building and central office administrators. Using the school improvement plans developed by every school in the district as a starting point, the teacher-facilitators taught administrators to conduct a gap analysis.





Costs of a Design Studio

- Staff time to manage pre-visit mailings, coordinate logistics
- Duplication of materials
- Mailing/phone calls
- *Release time for faculty*
- Food and beverages (host school)
- Travel (for visiting school)

Ways to Cover Costs

- School/district professional development funds
- Grant from private funder
- Fee-for-service (charged by host)

NOTES ON THE TOOLS

Tool 7.1: Preparing for a Design Studio

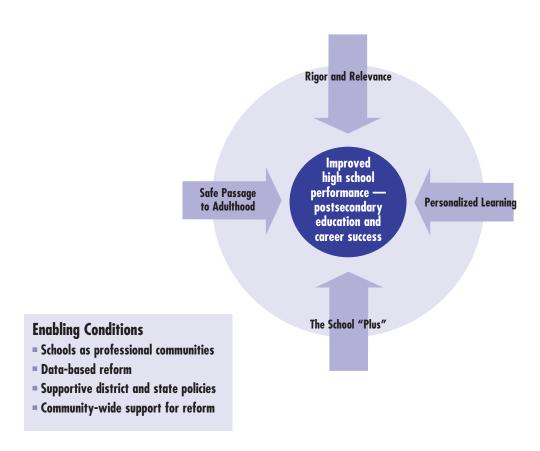
Before embarking on the actual visit, both the hosting and the visiting teams must do some homework. This lays out a sequence of steps that will make the visit much more productive for both teams.

Tool 7.2: What Will We Offer?

This guides the staff of the hosting school through a process of defining what is special about their school, identifying which design principles these features connect to, and, most importantly, describing what visitors can see and hear about that will help them see those features and principles in action.

Tool 7.3: What Do We Want to See?

This tool asks the visiting teams to match what the host school can offer with what they most want to see.



 Hosting School Assemble an interested team. Select design principles/key features to highlight for visitors by completing tool 7.2. Decide on staffing and responsibilities. Primary contact person; logistics coordinator; hosts; facilitators Send materials to visitors. Introductory letter; background information on the school (e.g., from brochure; district profiles), and completed version of Tool 7.2 Communicate with other staff, students, parents about the design studio.
 Visiting School Assemble an interested team. Identify requested focus areas for the visit (within context of materials sent by hosting school) by completing Tool 7.3. Decide on staffing and responsibilities. Primary contact person; logistics coordinator; materials preparation, presentation of results to own school, etc. Communicate hoped for outcomes to hosting school. Secure necessary release time (substitutes) and funds for travel.
Hosting School □ Prepare a two-day agenda (see sample, pg. 127). Review requests from visitors Plan what visitors will see; who they will hear from; reflection and debrief times □ Communicate with all staff, students, parents who will be involved □ Assemble materials for the visit and prepare packets for visitors. School journey map (see pg. 28) Samples of teacher work, student work Sample schedule, curricular sequencing, etc. relevant to key features □ Prepare staff to host and coach strategic planning process (day 2).
 Visiting School □ Complete a journey map to bring to the visit (see pg. 28). □ Do phase one of action planning, highlighting the principles and practices you want to implement and a description of where your school is now on each of these. (see Tool 7.7 pg. 132).

0 0 0	
Key Features ("Signature") of Our School:	
Design Principles We Can Show in Action:	
Selected Design Principles	Evidence Visitors Will See
Selected Design Principles	Evidence Visitors Will See
Selected Design Principles 1	Evidence Visitors Will See
Selected Design Principles 1 2	Evidence Visitors Will See

(adapted from Sir Francis Drake Design Studio, San Anselmo, CA)

Key Features ("Signature") of Our School:

- Small learning communities
- Project-based learning
- Teachers as learners
- Expanded learning community

Design Principles We Can Show in Action:

- Small learning communities
- Expanded learning community (School "Plus")

Selected Design Principles

Small Learning Communities

Expanded Learning Community (School "Plus")

Evidence Visitors Will See

- 9-10 integrated, project-based programs
- 11-12 career academies with integrated curric. & project-based learning (Communications, Engineering, Public Service, Environmental Science)
- Internships (w/projects) in fields of education, public service and business
- Adult panels to evaluate projects
- Guest artists and experts

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A design studio is more than a "show and tell" exercise. This means that the days of the visit must be organized to include time for observations, questions, discussion, and reflection. It also requires that the hosting school assist in the facilitation of the strategic planning process of the visiting school(s). The tools and templates in this section are designed to help in these activities.

The Sample Agenda is suggestive of the kinds and combination of things that make a very rich experience for a visiting team and for the hosting team as well. These include opportunities to visit classes, to talk with students who present work they have elected to share, to hear a panel of teachers discuss how their roles are changing, and to meet with the principal. The agenda also includes time for the visiting and hosting teams to engage in reflection.

A Design Studio Agenda:

(adapted from Rex Putnam High School Design Studio, North Clackamas, Oregon)

First Evening		Day One con	ntinued
6:30 - 7:15 7:15 - 7:45 7:45 - 8:00 8:00 - 8:20 8:20 - 8:30	Welcome and ice breaker activity Visiting and hosting teams present journey maps Q&A on hosting school journey map Hosting school shares binder of materials Reflection	12:00 - 12:40 12:45 - 2:00 2:00 - 2:20 2:20 - 3:30 3:30 - 4:00	Lunch Student presentations: Rigorous and relevant work Reflection and break Panel on district supports for reform Debrief
Day One 8:00 - 8:30 8:30 - 9:30 9:30 - 9:45 9:45 - 10:15 10:15 - 10:40 10:45 - 11:15 11:20 - 11:45	Students welcome visitors/ continental breakfast Staff panel on sustained professional development in project-based instruction Break Overview/presentation of the school's integrated model of grade 9-10 small learning communities Observation I: Visits to 9-10 classes Discussion with students Student panel-houses/Q & A Observation II: Visits to 9-10 classes Discussion with students Reflection	Day Two 8:30 - 9:00 9:00 - 10:00 10:00 - 12:00 12:00 - 1:00 1:00 - 1:45 1:45 - 2:15 2:15 - 2:30	Continental breakfast Individual reflection and group discussion: Implications of what we saw for teaching and learning Teams complete action plans Lunch Sharing of plans among teams Teams develop "bringing it back home" plans Final reflection/evaluation



NOTES ON THE TOOLS

Tool 7.4: Observation Worksheet

Visiting teams can use this tool to record their observations during the design studio. They can use the information they gathered to complete Tool 7.6 Trip Reflections and Tool 7.7 Completing the Action Plan.

Tool 7.5: Rigorous and Relevant Work

Teachers at the hosting school give this assignment to students prior to the design studio. Students are asked to bring something they have done that they consider both intellectually rigorous and relevant to their lives or the larger community. This becomes the basis for an interactive session.

Tool 7.6: Trip Reflection

This is a guide for journal writing during times set aside for reflection. With slight modifications, this can be used by the hosting school as well.

Tool 7.7: Action Planning Guide

In this activity, visiting team members consider the implications of what they've seen for their own school.

Tool 7.8: Bringing It Back Home

Visiting teams plan how they will present and use this information to excite others in their school.



		•	
Design Principle			
Evidence			
Where We Saw It			



Step 1:

Before the visitors come, ask eight to ten students (variable, depending on the number of adult visitors coming) each to select a piece of work he or she has done this year that meets both of the following criteria:

- The work must provide evidence of academic rigor or academic achievement.
- The work should have personal meaning or importance to the student and/or a larger community.

Step 2:

On the day of the visit, each of the students should be prepared to talk about how the piece s/he brings in meets those criteria. Specifically, they should address the following questions:

- What did you learn?
- Why did this piece of work matter to you?
- In what ways was it different from other assignments and learning experiences?
- How does it meet the criteria?

Step 3:

In small groups or at round tables (3-5 adults, 2-3 students), ask students to explain why they selected the pieces of work they brought and what it represents to them. The visitors should listen carefully for:

- What students were asked to know and understand;
- What they were asked to produce;
- What skills they employed in their academic pursuit;
- What habits of mind they were using.

Step 4:

After all of the students speak, the adults ask questions and give students feedback on what they learned from them. This is the visitors' opportunity to deepen their own understanding of what the combination of rigor and relevance can accomplish in terms of learning, engagement, and achievement.

At various points today, there will be time to write journal entries about what you are seeing and hearing. You can base these on what you wrote on the Observation Sheet (pg. 129). Share your journal during the debriefing times on the agenda. The results of your group reflections will be very helpful to the work on strategic planning and to presentations back at your

home so	chool.
A few p	dual Reflection brompts: What have I seen and heard? How does it relate to the design principles? hade an impression on me? Why? What am I thinking about now that I wasn't thinking before? What do I still need to ask?
A few p	Reflection/Debriefing prompts: What was most striking about what we saw today? How did what we saw to the focus areas that we selected? What composite picture is emerging from our experiences?

Review the trip reflections from Day One (Tool 7.6). Return to your action planning guide. (You would have completed steps 1 and 2 prior to your visit.) Complete steps 3-6.

Prior to Site Visit

Step 1

Begin by writing down the design principles and practices you want to achieve in the column labeled **DESIGN PRINCIPLES & PRACTICES**.

Step 2

Next, lay out your current practice in relation to each of the principles and practices in the column labeled **CURRENT PRACTICE**.

During Site Visit

Step 3

Given what you have seen and learned during your visit, what are the implications for your efforts to put particular design principles/practices into action in your school? In Table 2, record the opportunities and obstacles you see and new ideas you have for closing the gap between your current practice and the design principles as the result of your visit.

Step 4

Using the new ideas as a guide, devise action steps for reducing the barriers and realizing the design principles/practices in your school and place them in the column labeled **ACTIONS** of Table 1.

Step 5

Use Table 3 to keep track of your action steps and deadlines—the what, who, and when of getting it done.

Step 6

Determine how you will know you have achieved your objectives. That is, what is the evidence of success? Write down your key indicators of success in Table 4.

Step 2 CURRENT PRACTICE What is in place now?	Step 4 ACTIONS What steps to close gap between what is and what we want?	Step 1 DESIGN PRINCIPLES & PRACTICES What we want to see in place

OSING GAP	New Ideas	
o 3: ES AND NEW IDEAS FOR CL	Obstacles	
Step 3: IDENTIFYING OPPORTUNITIES, OBSTACLES AND NEW IDEAS FOR CLOSING GAP	Opportunities	
IDENTIFYING	Design Principles & Practices	

Step 5 GETTING IT DONE			
What's the Action Step?	Who's Responsible?	When Will it Happen?	
	,		

Step 6				
Design Principle/Practice How You Will Know You Have Achieved Design Principle/Practice				
	Indicate what documents, tools, measures, and data you will use:			
	Dratective white vicestments, veets, measures, white victor year vices vises			

How will we share these? (e.g., PowerPoint, handouts, newsletter, other)

Who will we share our learning with back at our school?

What are the forums/times for doing this sharing?





Jobs for the Future's
Connected Learning
Communities Network is
affiliated with the U.S.
Department of Education's
New American High
Schools Initiative.
The NAHS strategies are

discussed on this page.

NEW AMERICAN HIGH SCHOOL INITIATIVE

Supporting High School Improvement Through Reform Networks

New American High Schools are schools where all students are expected to meet both challenging academic standards and acquire the communication, problem-solving, computer and technical skills necessary to pursue college and careers.

New American High Schools strategies for whole-school reform at the high school level are the following:

- All the core activities of the school focus on student learning and achievement. Curriculum, instruction, assessment, scheduling, staff development, hiring, and student advising are designed to promote student success. (These practices are continually reviewed and improved.)
- All students are expected to master the same rigorous academic material. High expectations are established for student achievement.
- Staff development and planning emphasize student learning and achievement. Faculty has time to meet regularly to plan and evaluate student progress. Teachers work together across academic and technical disciplines. Teachers and counselors do internships in workplaces to learn how work and academic and technical skill requirements are changing and to develop ideas for curricula and classroom projects.
- The curricula are challenging, relevant, and cover material in depth.
- Teaching takes into account students' special interests and learning styles, and encourages students to think, develop understanding, and apply learning to real-life problems.
- Schools are using new forms of assessment. Students must demonstrate proficiency in subjects through projects, portfolios, and exhibitions of their work.
- Students get extra support from adults. Students have mentors who help them with their school work, career exploration and preparation for college. They receive extra help with school work after-school, on weekends and during the summer. Teachers, counselors, and advisors are responsible for a smaller number of students than in traditional high schools and often work with the same students for two or more years.
- Students learn about careers and college opportunities through real-life experiences. Students participate in community service, workplace internships, school-based enterprises and entrepreneurship activities. They learn what knowledge and skills are required to enter college and pursue careers.
- Schools create small, highly personalized, and safe learning environments. They are often small or organized into schools-within-schools, academies, clusters or houses.
- Technology is integrated into the classroom to provide high quality instruction, and students have opportunities to gain computer and other technical skills. Students have Internet access and computers are used to improve school administration.
- Periods of instruction are longer and more flexible. There is more time to get into subjects in depth and to make connections among subjects, for example, math, science, and technology. There is also more time for labs, technical course work, off-campus learning, and to undertake complex projects.
- Strong partnerships are forged with middle schools and colleges. Teachers work together to align course requirements, provide students with opportunities to take higher level course work, and prepare students to make successful transitions to the next level of education and work.
- Schools form active alliances with parents, employers, community members and policy makers to promote student learning and ensure accountability for results.